

Chapter 3

By Window

Chapter Organization	R39
System Flowchart	R39

List of Figures in this Chapter

Figure 3-1. System Flowchart by Window.	R40
Figure 3-1. System Flowchart by Window, Continued.	R41
Figure 3-2. About Imager Window.	R42
Figure 3-3. Acquisition Continue Parameters Window.	R43
Figure 3-4. Acquisition Start Parameters Window.	R44
Figure 3-5. Add Standard to List Window.	R46
Figure 3-6. Create Template Window.	R48
Figure 3-7. Custom Palette Window.	R51
Figure 3-8. Display Options Window.	R52
Figure 3-9. Edit Acquisition Protocol File Window.	R55
Figure 3-10. Edit Arrow Window.	R59
Figure 3-11. Edit Current Protocol Window.	R61
Figure 3-12. Edit Group of Regions Window.	R65
Figure 3-13. Edit Lane Points Window.	R68
Figure 3-14. Edit Region Window.	R72
Figure 3-15. Edit Time Series Window.	R74
Figure 3-16. File Export Window.	R76
Figure 3-17. Find Regions Window.	R80
Figure 3-18. Font Window.	R84
Figure 3-19. Grid Report Options Window.	R86
Figure 3-20. Grid Template Parameter Window.	R89
Figure 3-21. Image Information Window.	R92
Figure 3-22. The Imager Users Window.	R95
Figure 3-23. InstantImager Window.	R99
Figure 3-24. Lane Group Report Options Window.	R100
Figure 3-25. Lane Template Parameters Window.	R104
Figure 3-26. Load Acquisition Protocol Window.	R107
Figure 3-27. Load Template Window.	R109
Figure 3-28. Mark Standard Window.	R111
Figure 3-29. Molecular Weight Standard Curve Window.	R113
Figure 3-30. Open Image Window.	R114

List of Figures in this Chapter Continued

Figure 3-31. Print Window.	R116
Figure 3-32. Region Group Report Options Window.	R119
Figure 3-33. Rescale Bitmap Window.	R122
Figure 3-34. Save Image as Window.	R125
Figure 3-35. Save Report as Window.	R127
Figure 3-36. Save Template as Window.	R130
Figure 3-37. Select Molecular Weight Standards Window.	R132
Figure 3-38. Smooth Parameters Window.	R134
Figure 3-39. Standard Curve Parameters Window.	R136
Figure 3-40. System Operator Window.	R139
Figure 3-41. Task List Window.	R141
Figure 3-42. Template Report Window.	R143
Figure 3-43. Text Annotation Window.	R145
Figure 3-44. Time Series Warning Window.	R147
Figure 3-45. User Information Window.	R149
Figure 3-46. User Preferences Window.	R151
Figure 3-47. Users Images Window.	R154
Figure 3-48. Which Protocol to Edit Window.	R156

Chapter Organization

This chapter presents main function windows in alphabetical order. To find a specific window, match the name of the window on your screen with its counterpart in this chapter.

The name of each window is displayed in the title bar.

A system flowchart is included to illustrate the organization of the main functions.

System Flowchart

Each branch of the InstantImager system has one or more windows associated with it. The windows contain selections that allow you to define the function that the instrument is to perform. The system flowchart shown in Figure 3-1 shows the selections available from each menu at the **InstantImager** window.



Note: Menu selections with ellipsis points (...) open to additional windows. Selections without ellipsis points indicate commands.

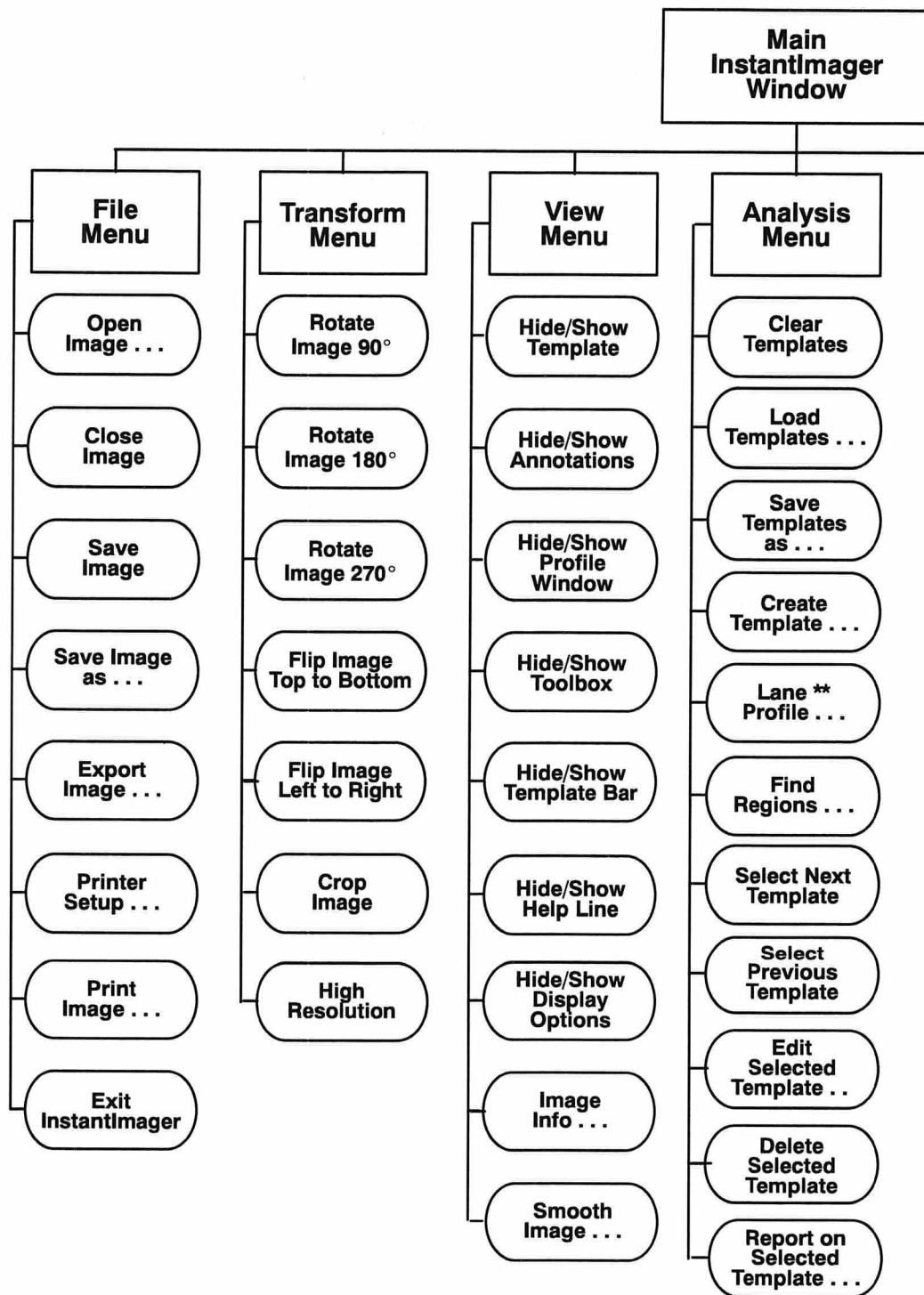
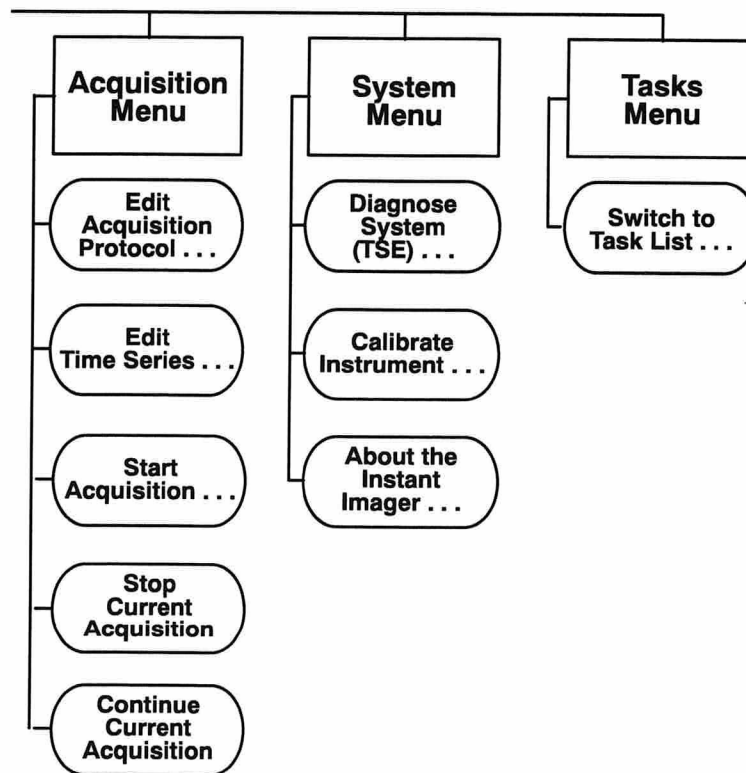


Figure 3-1. System Flowchart by Window.



** When you select **Lane Profile** the menu bar and template bar will change. See the flowchart in chapter 8 of this manual.

Figure 3-1. System Flowchart by Window, Continued.

About InstantImager Window

The **About InstantImager** window (Figure 3-2) identifies the system and displays information about the instrument, including:

- The dimensions and serial number of the detector.
- The current version of the software and ROM.
- Copyright information.

To display the **About InstantImager** window:

- ☐ Select **About** from the **System** menu.

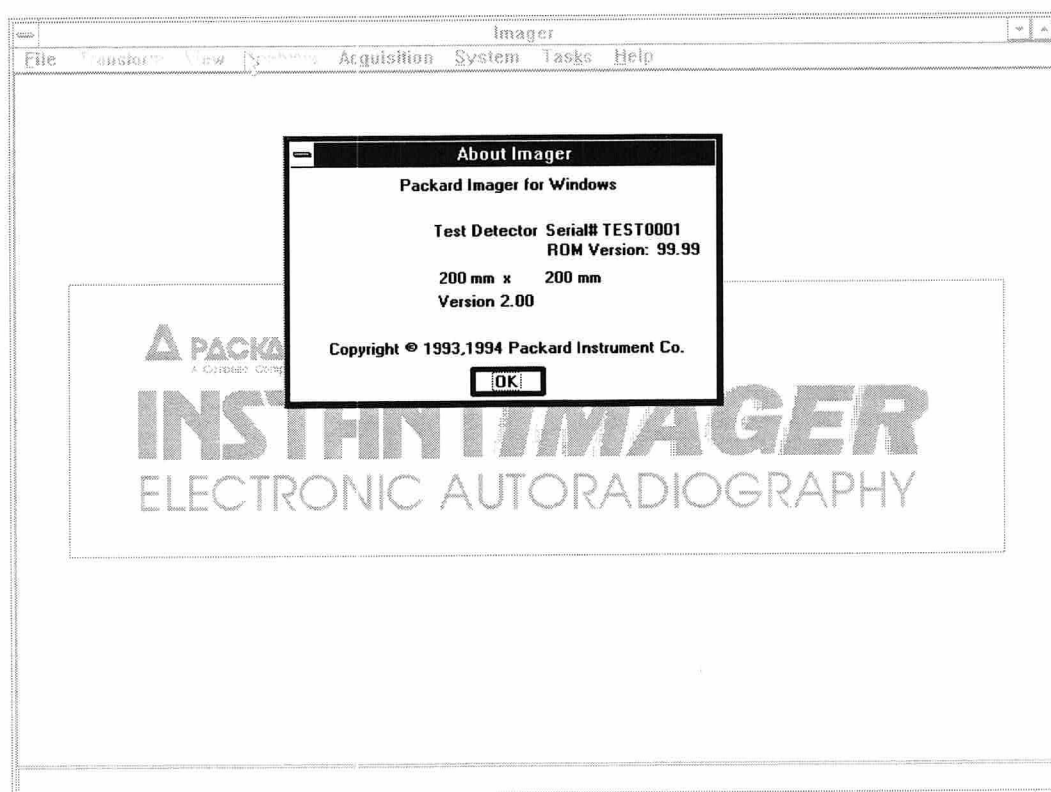


Figure 3-2. About Imager Window.

Acquisition Continue Parameters Window

The **Acquisition Continue Parameters** window (Figure 3-3) enables you to specify how long the acquisition should continue after it has been stopped.

To display the **Acquisition Continue Parameters** window:

- ☐ Select **Continue** from the **Acquisition** menu.

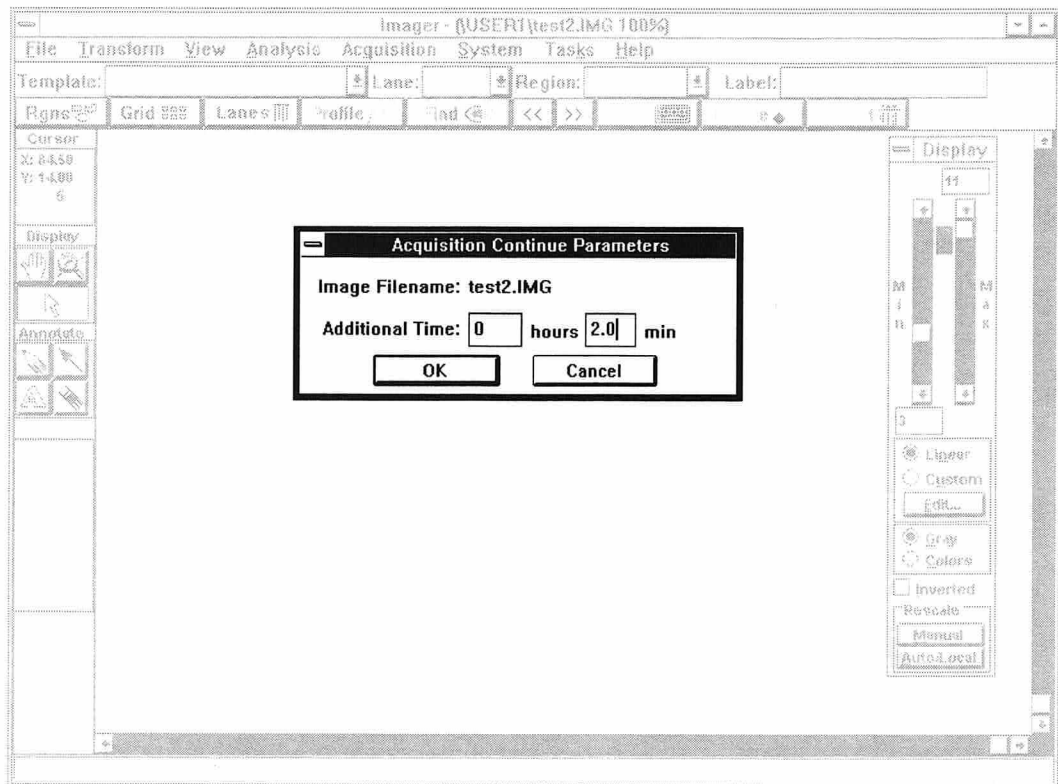


Figure 3-3. Acquisition Continue Parameters Window.

SELECTION

Image Filename

Additional Time [hours]

Additional Time [min]

OK

CANCEL

DESCRIPTION OF USE

The filename of the image currently being acquired.

Enter the number of additional hours you want the acquisition to run.

Enter the number of additional minutes you want the acquisition to run.

Continues the acquisition.

Aborts the operation.

Acquisition Start Parameters Window

The **Acquisition Start Parameters** window (Figure 3-4) enables you to specify the protocol file and the image file immediately prior to an acquisition.

To display the **Acquisition Start Parameters** window:

- ☐ Select **Start** from the **Acquisition** menu.

The date and time the instrument was last calibrated is displayed in the window, as well as the status of the Time Series Acquisition mode (see page R200). Time Series mode is active if the time interval and number of images that will be acquired from the series are displayed.

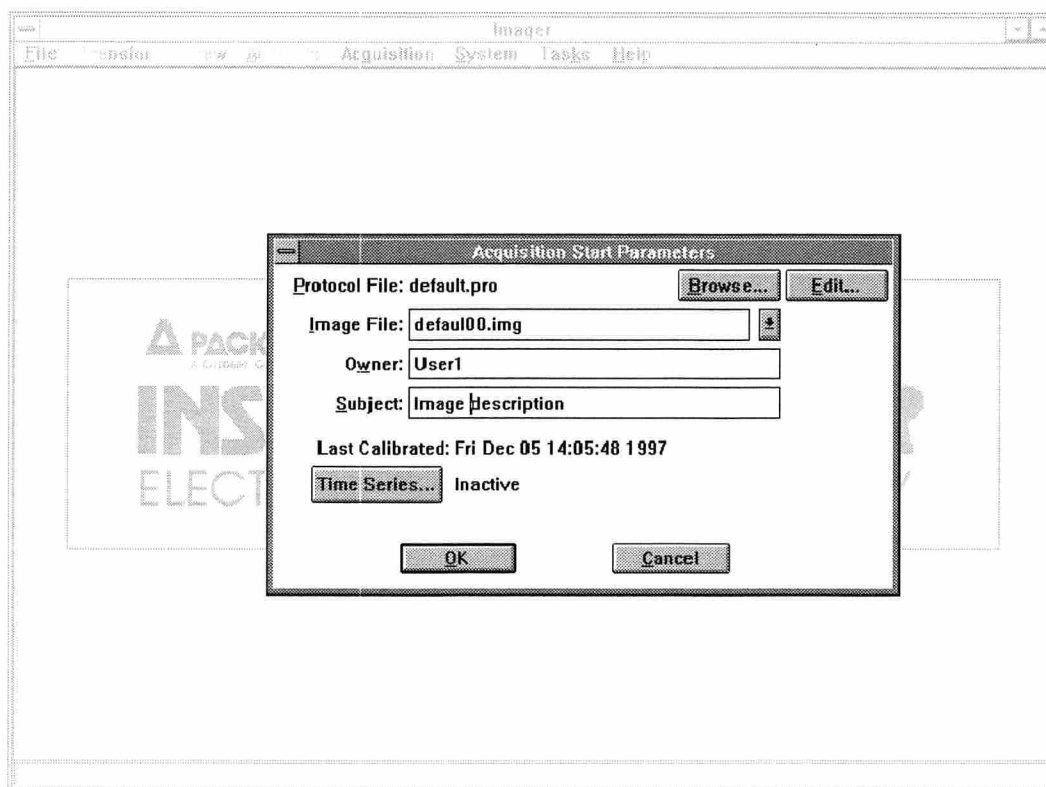


Figure 3-4. Acquisition Start Parameters Window.

SELECTION**DESCRIPTION OF USE****Protocol File:**

The name of the protocol file.

Select **BROWSE** to display the **Load Acquisition Protocol** window (Figure 3-26). Select a protocol file from the list.

Image File:

Enter the name of the image file. Select the drop-down arrow to select an image file from the list.

If you have elected to use the Time Series Acquisition mode, the image files will be saved using the first six characters (or less) of the filename and appending a two digit, incrementing numerical value to the end.

Owner:

The name or initials of the individual responsible for the acquisition.

Subject:

The image's main area of interest. Printed in the heading of the template report.

BROWSE

Displays the **Load Acquisition Protocol** window (Figure 3-26). Select a protocol from the list.

EDIT

Displays the **Edit Current Protocol** window (Figure 3-11). Enables you to change protocol parameters that affect the current acquisition only.

TIME SERIES

Displays the **Edit Time Series** window (Figure 3-15) so that you can enable Time Series acquisitions and modify the Time Series parameters.

OK

Initiates the acquisition and closes the window.

CANCEL

Aborts the operation and closes the window.

Add Standard to List Window

The **Add Standard to List** window (Figure 3-5) enables you to add standards to the default list of standards at the **Mark Standard** window.

A molecular weight and comment can be assigned to each standard that you add.

To display the **Add Standard to List** window:

- ☐ Select **ADD** at the **Mark Standard** window.

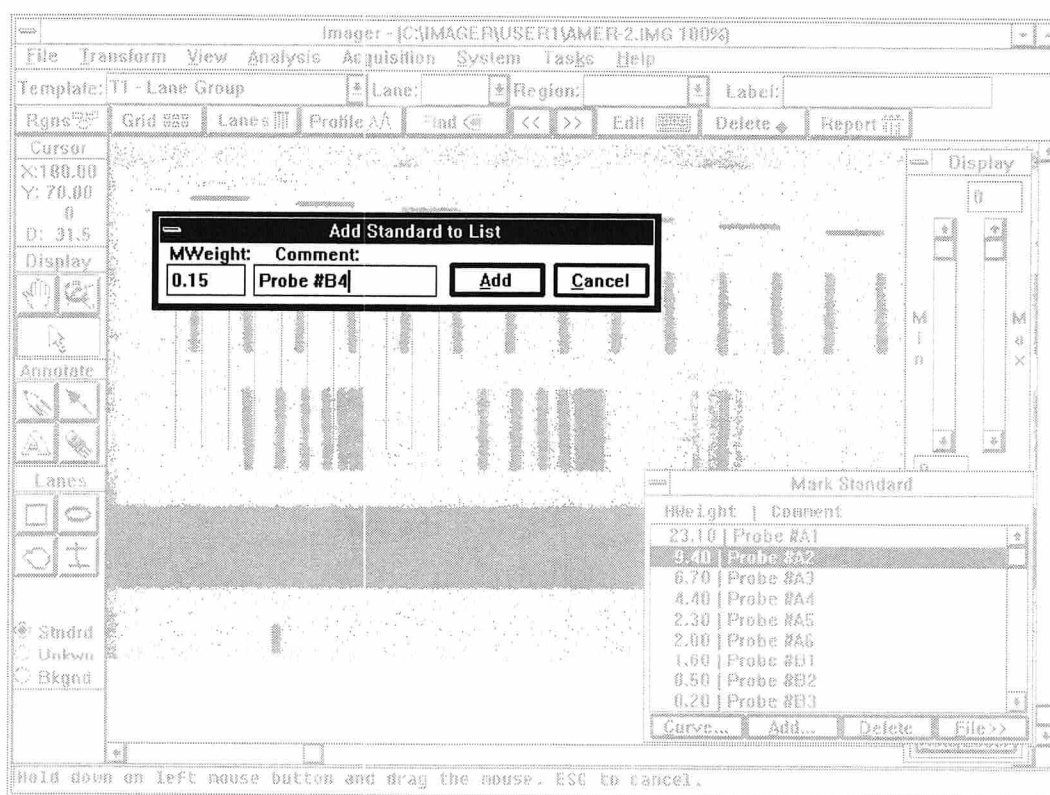


Figure 3-5. Add Standard to List Window.

SELECTION

DESCRIPTION OF USE

MWeight:

Enter the molecular weight of the standard.

Comment:

Enter a brief comment that identifies the standard.

ADD

Adds the standard (molecular weight and comment) to the list. Select by pressing **<Enter>**.

CANCEL

Aborts the operation and closes the window.

Create Template Window

The **Create Template** window (Figure 3-6) enables you to specify the type of template you want to create and display over the image.

Each selection displays a special window that enables you to create the specific template.

To display the **Create Template** window:

- ☐ Select **Create Template** from the **Analysis** menu.

To display the selected template window:

- ☐ Select the appropriate template option (Grid, Lanes, or Group of Regions).
- ☐ Select **OK**.

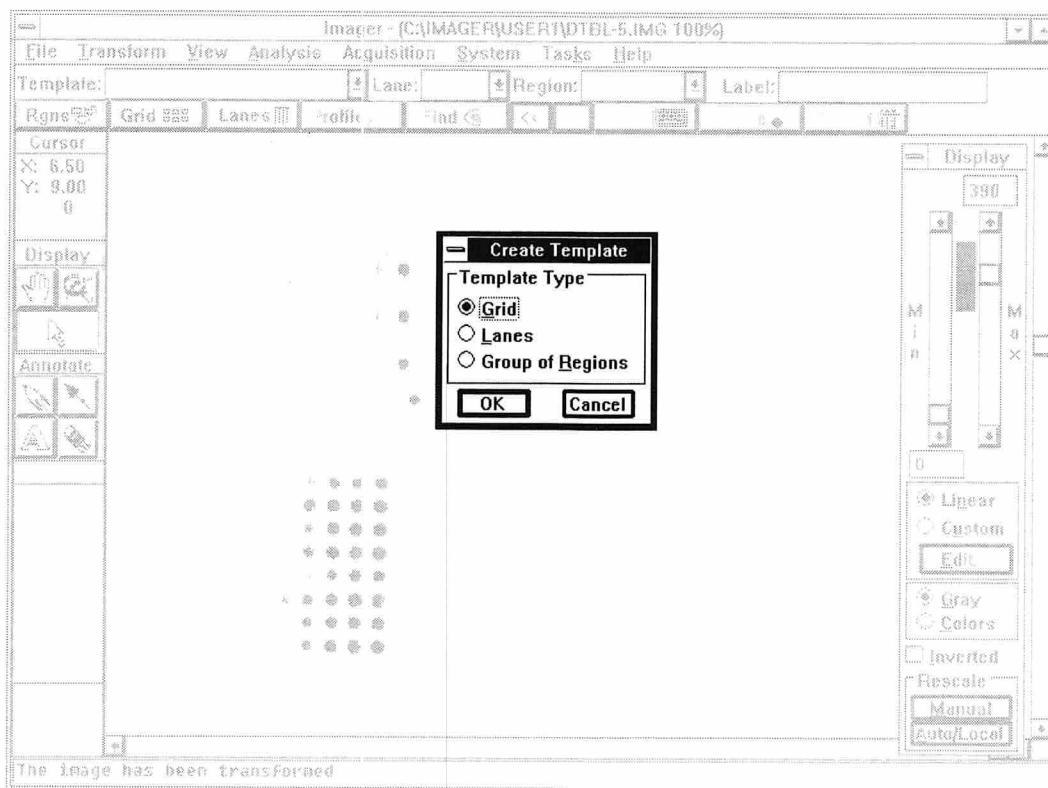


Figure 3-6. Create Template Window.

SELECTION**DESCRIPTION OF USE****Template Type:
Grid**Displays the **Grid Template Parameters** window (Figure 3-20).**Template Type:
Lane**Displays the **Lane Template Parameters** window (Figure 3-25).**Template Type:
Group of Regions**Displays the **Edit Group of Regions** window (Figure 3-12).**OK**

Displays the selected option. Closes the window.

CANCEL

Cancels the selection. Closes the window.

Custom Palette Window

The **Custom Palette** window (Figure 3-7) enables you to adjust the relationship of the image intensity levels to the palette. The palette is the series of colors or shades of gray that the computer uses to display the image in the computer screen bitmap. You can adjust the palette to focus on areas of the image that contains low concentrations of counts as well as high concentrations of counts.

Adjusting the palette is for purely visual purposes only; it does not affect the raw data. Once the palette of an image has been adjusted, the visual effects can be translated to the printed image as well.

Palette Graphs

Three pre-defined palette graphs are displayed to the right in the window. Each graph enables you to adjust the palette to suit your particular needs:

- Linear (top graph): displays a straight linear palette.
- Concave (middle graph): displays a logarithmic palette.
- Sigmoid (bottom graph): displays a palette that mimics an X-ray film image.

Click on the top graph to provide a linear relationship between the increments of color and intensity of the image. A linear palette will provide equal contrast and detail in the count range of the image designated by the bitmap.

Click on the middle graph to provide a logarithmic relationship between the increments of color and intensity of the image. The logarithmic relationship allows for greater range of intensities to be displayed. It does this by using progressively more color levels to display the lower range of counts in the bitmap than in the higher range.

Click on the bottom graph to provide a relationship between the increments of color and intensity of the image that mimics the qualities of X-ray film.

The large graph in the center of the window reflects the palette and bitmap of the currently selected graph. You can interactively adjust the five points displayed in the large graph.

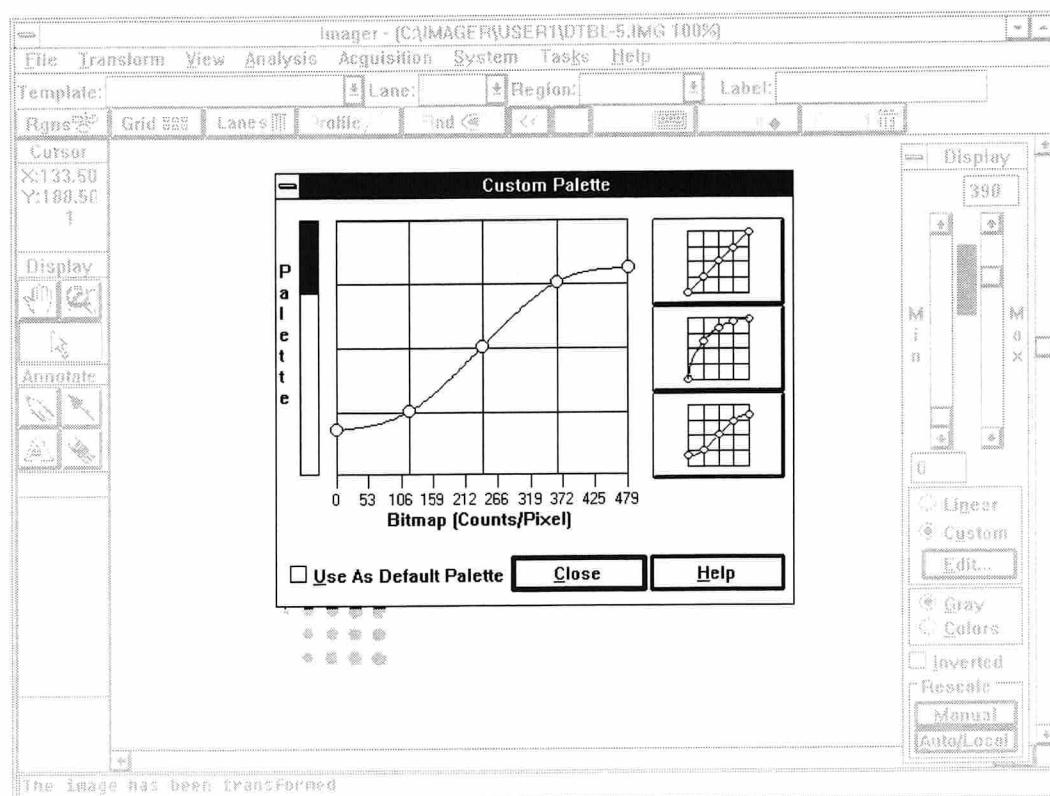


Figure 3-7. Custom Palette Window.

SELECTION

Use As Default Palette

DESCRIPTION OF USE

If this checkbox is selected when you close the window, then the current values of the graph's five points will be saved as the default parameters. These parameters will be used to create the default palette when the window is first opened for an image.

CLOSE

Closes the window.

HELP

Displays online help.

Display Window

The **Display** window (Figure 3–8) enables you to adjust the aesthetic qualities of the display by suppressing the background and producing optimal contrast in regions of interest.

The **Display** window is displayed at the main **InstantImager** window and can be hidden from view.

To hide the **Display** window:

- ☐ Select **Hide Display Options** from the **View** menu.

To redisplay the **Display** window:

- ☐ Select **Show Display Options** from the **View** menu.

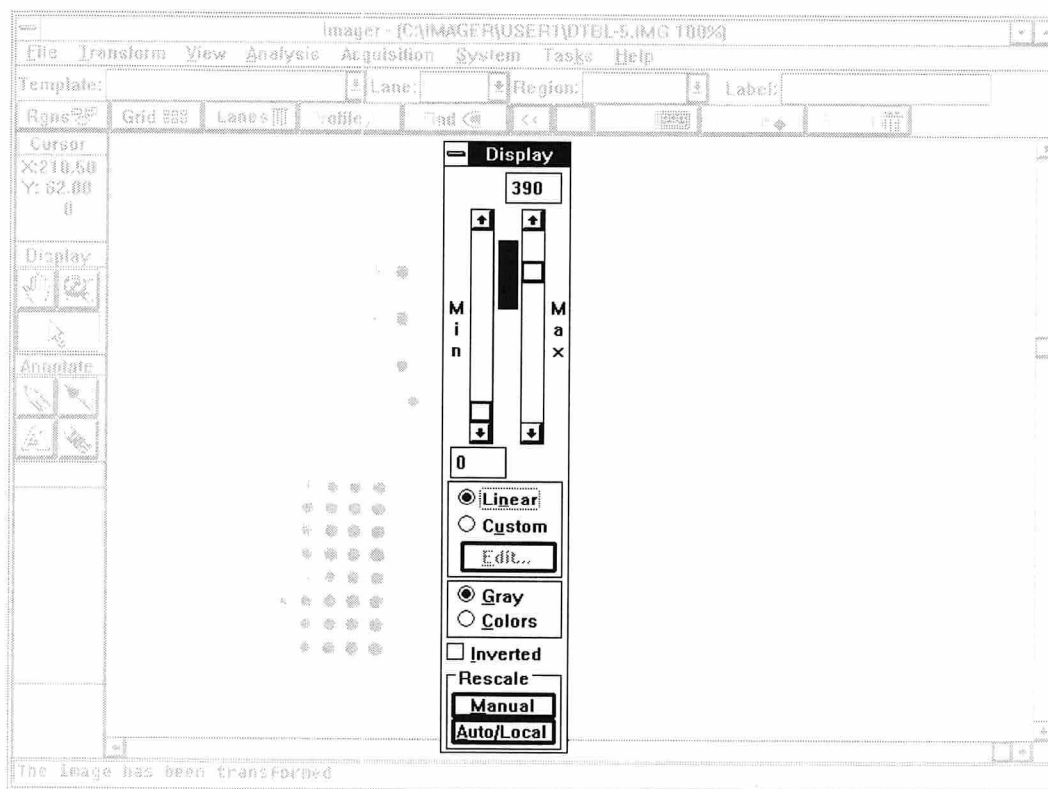


Figure 3–8. Display Options Window.

SELECTION**DESCRIPTION OF USE****Min**

The minimum image intensity or counts that you wish to display. All pixels in the image display with counts at this level or lower will be the color corresponding to the minimum intensity.

Adjust the minimum image intensity with the slide control bar on the left or by typing the numerical value in the box beneath the slide control bar.

Adjust the minimum image intensity to suppress the background. For example, if there are background counts in the image of one to three counts per pixel, you can suppress it by adjusting the minimum value to three.

Max

The maximum image intensity or counts that you want to display. All pixels in the image display with counts at this level or greater will be the color corresponding to the maximum intensity.

Adjust the maximum image intensity with the slide control bar on the right or by typing the numerical value in the box above the slide control bar.

Adjust the maximum image intensity to low values to see weak intensities; high intensity areas will become saturated with the color corresponding to the maximum intensity. Adjust the maximum image intensity to low values to see the details in high intensity areas.

SELECTION

DESCRIPTION OF USE

Linear

Provides a linear relationship between the increments of color and the intensity of the image.

Custom

When selected, activates the **EDIT** button. Selecting **EDIT** displays the **Custom Palette** window. This window enables you to control the shape of the palette. The palette is the series of colors or shades of gray that can be displayed by the computer screen to represent color codes or image intensity levels in the computer screen bitmap.

Gray

Displays variations of intensity in the palette in shades of grey.

Colors

Displays variations of intensity in the palette in increments of color (pseudo color).

Inverted

Inverts the palette. The palette normally changes from white to black with increasing image intensity or counts.

Rescale: Manual

Opens the **Rescale Bitmap** window (Figure 3-33). This window enables you to scale the image display to any range within the range of counts in the image.

**Rescale:
Auto/Local**

Enables the system to automatically optimize the display to the intensities in a specific region of interest in the image. The pointer becomes a bracket; use the bracket to draw a rectangle around the area.

Edit Acquisition Protocol File Window

The **Edit Acquisition Protocol File** window (Figure 3-9) enables you to create or modify a protocol to the system. The selections presented at this window are the same for each protocol you define.

To display the **Edit Acquisition Protocol File** window:

- ☐ Select **Edit** from the **Acquisition** menu.

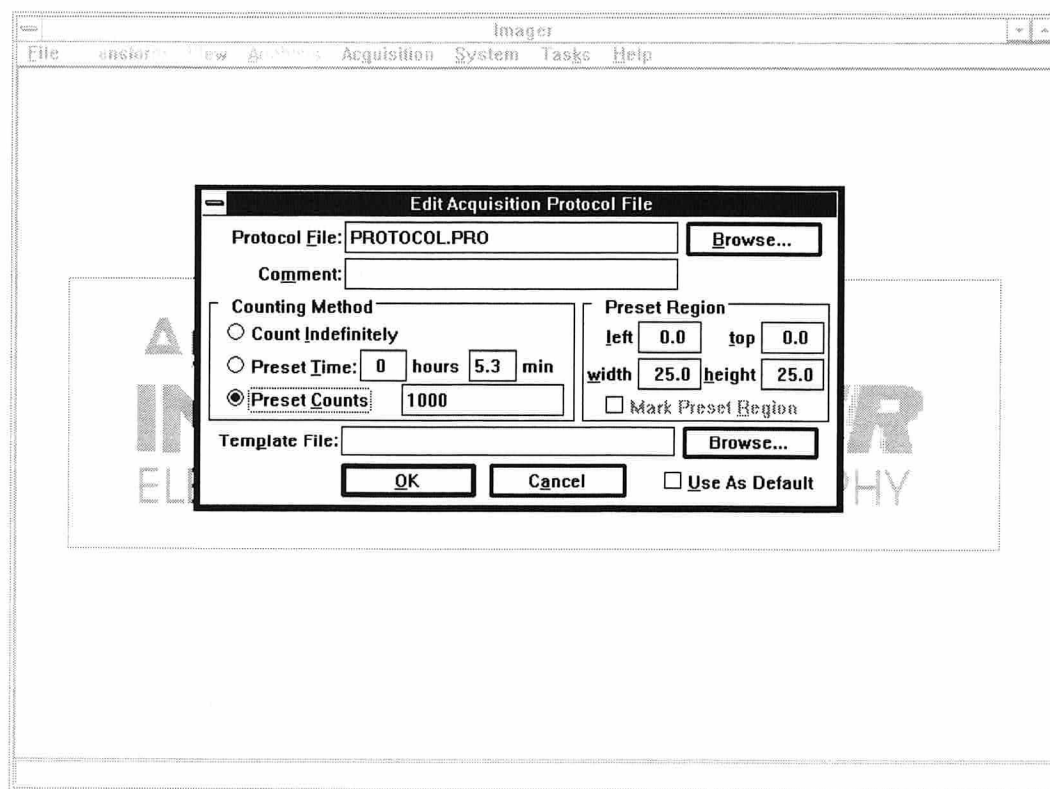


Figure 3-9. Edit Acquisition Protocol File Window.

SELECTION

DESCRIPTION OF USE

Protocol File:

Enter the name of the protocol file. By providing a descriptive name, the protocol becomes easy to identify for use in imaging or for editing. The protocol name appears in the selection windows (for editing and loading).

Select **BROWSE** to display the **Load Protocol Window** (Figure 3-26). Select a protocol file from the list.

Comment:

Enter a comment. Comments are displayed in each template report. They are used to describe the protocol. You can only include one comment per protocol, so try to make them as brief and descriptive as possible.

**Counting Method:
Count Indefinitely**

Select this option to have the system count the sample indefinitely. The system will process the sample until you intervene and halt the process.

**Counting Method:
Preset Time (hours)**

Select this option to specify the exact number of hours the imaging process should take. Once the exact number of hours (and/or minutes) have transpired, the imaging process will stop and the image is displayed on the screen.

**Counting Method:
Preset Time (min)**

Select this option to specify the exact number of minutes the imaging process should take. Once the exact number of minutes (and/or hours) have transpired, the imaging process will stop.

Minutes are expressed in decimal form. As you enter a number, the minutes are placed to the left of the decimal point; fractions of a minute are placed to the right of the decimal point. For example, when you enter **5.3**, the image would process for five and 3/10 minutes.

SELECTION**DESCRIPTION OF USE****Counting Method:
Preset Counts**

Select this option to specify the number of counts the system will collect over the entire image or over a preset region. Once the specified number of counts have been collected, the system will stop the imaging process and display the full image on the screen.

**Preset Region:
Left**

Enter the coordinate of the leftmost boundary of the region.

**Preset Region:
Top**

Enter the coordinate of the topmost boundary of the region.

**Preset Region:
Width**

Enter the number of cursor positions the region occupies along the invisible X axis.

**Preset Region:
Height**

Enter the number of cursor positions the region occupies along the invisible Y axis.

Mark Preset Region:

This box is grayed inactive unless you access this window to modify a currently running acquisition. See **Edit Current Protocol** window (Figure 3-11).

Template File:

Enter the name of the template file you want placed over the image. The template is automatically placed over the image during processing. This feature is useful for images that have predictable patterns, such as microtiter plates. Automatically loading the template eliminates the need to create and load a template once the image has been developed.

Select **BROWSE** to display the **Load Template** window (Figure 3-27). You can select a template file from the list.

SELECTION

Use as Default

DESCRIPTION OF USE

Select this check box to specify the current protocol as default. The default protocol is automatically loaded when you start the acquisition.

BROWSE

Displays a selection list. When entering a protocol file, selecting **BROWSE** displays the **Load Acquisition Protocol** window (Figure 3-26); select a protocol file from this list.

When entering a template file, selecting **BROWSE** displays the **Load Template File** window (Figure 3-27); select a template file from this list.

OK

Saves the protocol. Closes the window.

CANCEL

Aborts the operation. Closes the window.

Edit Arrow Window

The **Edit Arrow** window (Figure 3–10) enables you to change the dimensions and aspects of an arrow currently displayed over an image. Only the aspects of the arrowhead are affected.

To display the **Edit Arrow** window:

- ☐ Double click on the arrow displayed over the image.

Or,

- ☐ Select **Edit Template** from the **Analysis** menu when the arrow is highlighted.

Changes to the style, width, and length of the arrowhead, are displayed in the window. This feature enables you to view the arrow before committing to a change.

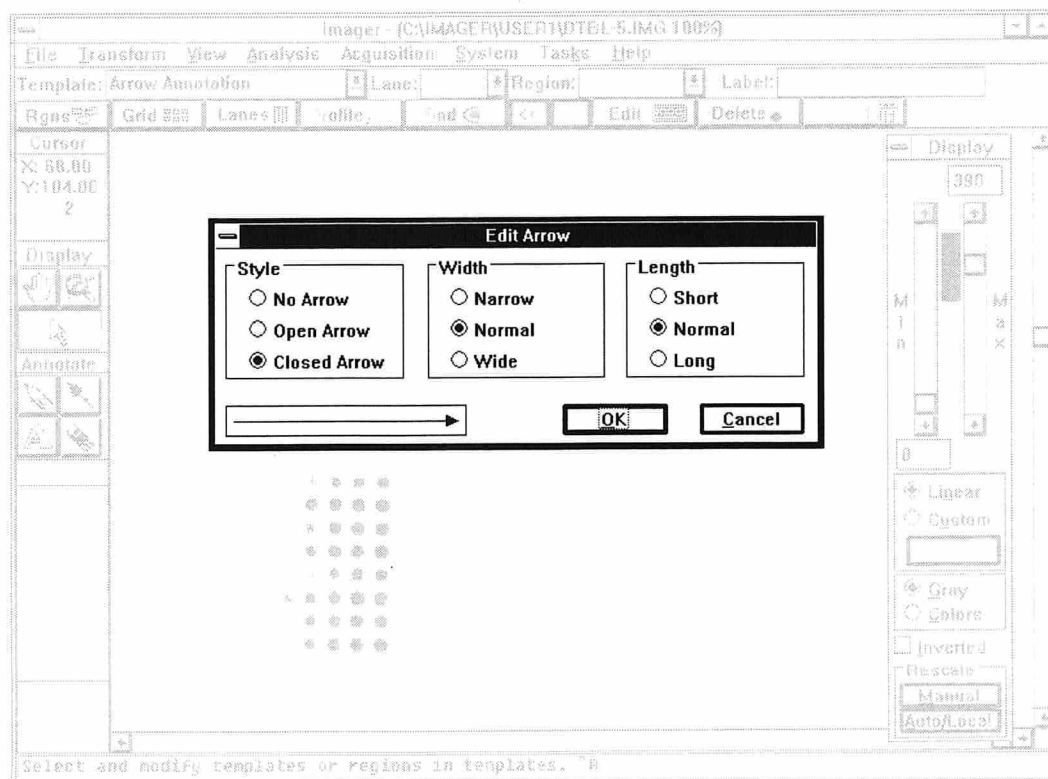


Figure 3–10. Edit Arrow Window.

SELECTION

DESCRIPTION OF USE

Style: No Arrow

Select this option to hide the arrow from view.

Style: Open Arrow

Select this option to display the arrow as a caret symbol (>).

Style: Closed Arrow

Select this option to display a solid arrow.

Width: Narrow

Select this option to narrow the normal width of the arrow.

Width: Normal

Select this option to display the standard width arrow.

Width: Wide

Select this option to exaggerate the normal width of the arrow.

Length: Short

Select this option to shorten the normal length of the arrow.

Length: Normal

Select this option to display the standard length arrow.

Length: Long

Select this option to exaggerate the normal length of the arrow.

OK

Applies the changes to the arrow. Closes the window.

CANCEL

Ignores the changes to the arrow. Closes the window.

Edit Current Protocol Window

The **Edit Current Protocol** window (Figure 3–11) enables you to change the protocol parameters of the current acquisition. Changes do not affect the permanent copy of the protocol.

To display the **Edit Current Protocol** window:

- ☐ Select “Current Protocol” from the **Which Protocol to Edit** window (Figure 3–48).

Or,

- ☐ Select **EDIT** from the **Acquisition Start Parameters** window (Figure 3–4).

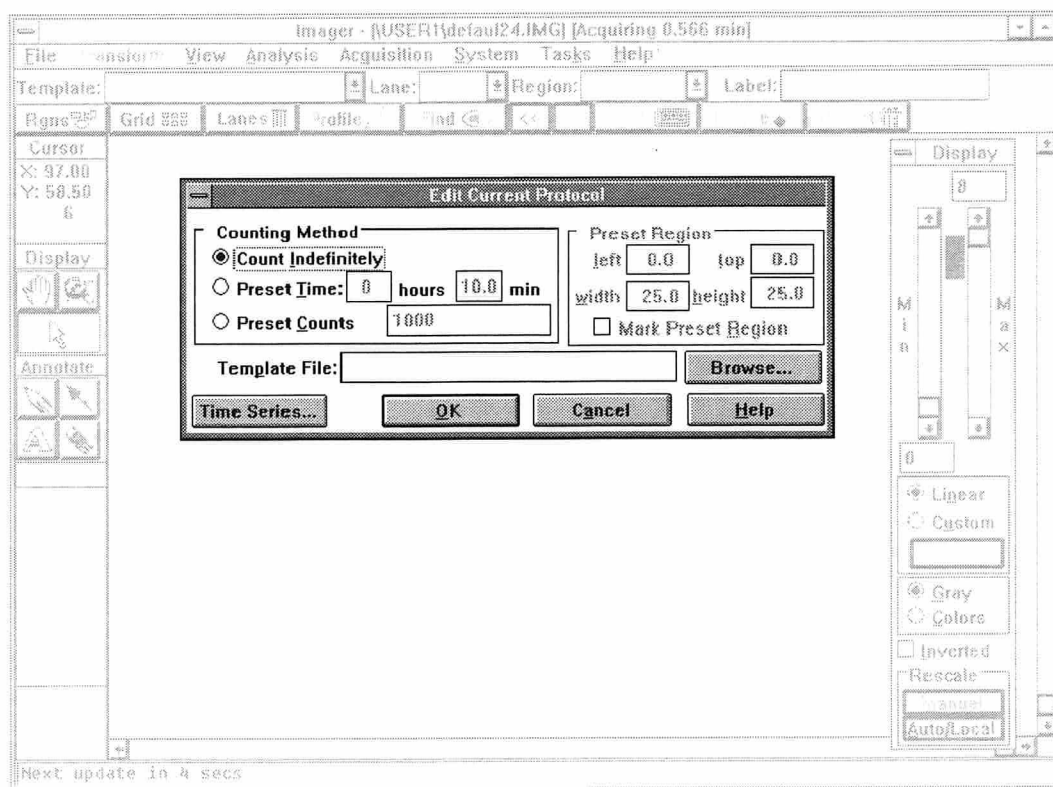


Figure 3–11. Edit Current Protocol Window.

SELECTION

DESCRIPTION OF USE

**Counting Method:
Count Indefinitely**

Select this option to have the system count the sample indefinitely. The system will process the sample until you intervene and halt the process.

**Counting Method:
Preset Time (hours)**

Select this option to specify the exact number of hours the imaging process should take. Once the exact number of hours (and/or minutes) have transpired, the imaging process will stop and the image is displayed on the screen.

**Counting Method:
Preset Time (min)**

Select this option to specify the exact number of minutes the imaging process should take. Once the exact number of minutes (and/or hours) have transpired, the imaging process will stop.

Minutes are expressed in decimal form. As you enter a number, the minutes are placed to the left of the decimal point; fractions of a minute are placed to the right of the decimal point. For example, when you enter **5.3**, the image would process for five and 3/10 minutes.

**Counting Method:
Preset Counts**

Select this option to specify the number of counts in a single pixel the system will collect over the entire image or over a preset region. Once the specified number of counts have been collected, the system will stop the imaging process and display the full image on the screen.

**Preset Region:
Left**

Enter the coordinate of the leftmost boundary of the region.

SELECTION**DESCRIPTION OF USE****Preset Region:
Top**

Enter the coordinate of the topmost boundary of the region.

**Preset Region:
Width**

Enter the number of cursor positions the region occupies along the invisible X axis.

**Preset Region:
Height**

Enter the number of cursor positions the region occupies along the invisible Y axis.

Mark Preset Region:

Enables you to draw a region on the image. The mouse pointer becomes a corner bracket when you select **OK**. Use the bracket to draw the region.

Template File:

Enter the name of the template file you want placed over the image. The template is automatically placed over the image during processing. This feature is useful for images that have predictable patterns, such as microtiter plates. Automatically loading the template eliminates the need to create and load a template once the image has been developed.

Select **BROWSE** to display the **Load Template** window (Figure 3-27). You can select a template file from the list.

BROWSE

When entering a template file, selecting **BROWSE** displays the **Load Template** window (Figure 3-27); select a template file from this list.

TIME SERIES

Displays the **Edit Time Series** window (Figure 3-15) so that you can enable Time Series Acquisitions (see page R200) and modify the Time Series parameters.

OK

Continues the acquisition. Closes the window.

CANCEL

Aborts the operation. Closes the window.

HELP

Displays online documentation that describes the function of the current window.

Edit Group of Regions Window

The **Edit Group of Regions** window (Figure 3-12) enables you to specify the parameters that determine how regions are tagged on the image and how results are reported. Samples, such as two dimensional TLC plates, two dimensional electrophoresis gels, and tissues sections can be analyzed with groups of regions.

Once the parameters have been defined at this window, you can create the group of regions. See the Chapter, *Using Groups of Regions* (page R219) for information on how to create a group of regions.

To display the **Edit Group of Regions** window:

- ☐ Select **Create Template** from the **Analysis** menu.

The **Create Template** window is displayed (Figure 3-6).

- ☐ Select "Group of Regions".
- ☐ Select **OK**.

You can also access the **Edit Group of Regions** window when a region group template is highlighted:

- ☐ Select **EDIT** in the template bar or **Edit Templates** from the **Analysis** menu.

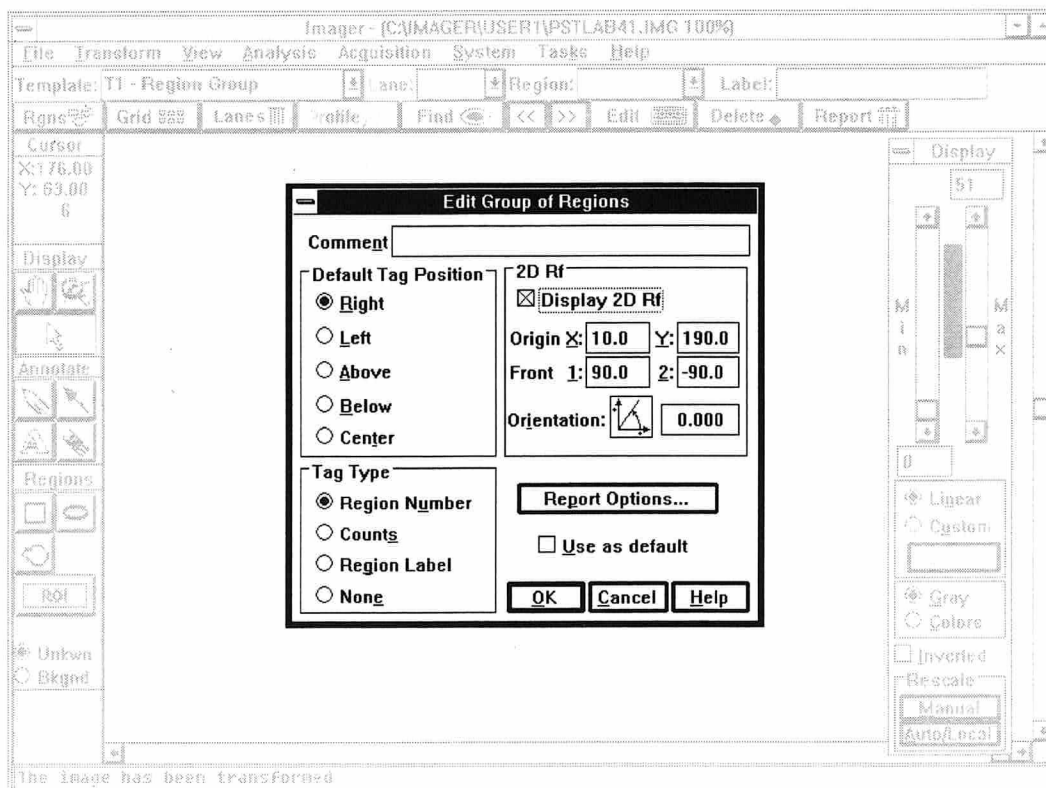


Figure 3-12. Edit Group of Regions Window.

SELECTION

DESCRIPTION OF USE

Comment

Enter a comment that will be included in reports.

Default Tag Position: Right, Left, Above, Below, Center

Select the placement of the tag relative to each region: to the Right, Left, Above, Below or in the Center.

Tag Type: Region Number

Select this option to have the system automatically number the regions in the group. The regions are numbered consecutively in the order they are created.

SELECTION**DESCRIPTION OF USE**

**Tag Type:
Counts**

Select this option to have the system automatically display the gross counts next to each region.

**Tag Type:
Region Label**

Select this option to display user-defined labels next to the regions.

**Tag Type:
None**

Select this option if you want no region tags displayed or printed.

Display 2D Rf

Enables you to perform 2D Rf analysis. Once selected, all the other items in the 2D Rf section of the window will become active (grayed out otherwise). These options allow you to define the location and orientation of the two origins and fronts.

2D Rf: Origin X

Enter the X location on the image of the two origins. The X location is limited to values 0–240. You can edit the X location numerically or graphically.

2D Rf: Origin Y

Enter the Y location on the image of the two origins. The Y location is limited to values 0–240. You can edit the Y location numerically or graphically.

2D Rf: Front 1

Enter the distance of the first front from the location of the two origins. Front 1 is limited to values of +240 to –240. You can edit the distance of the first front numerically or graphically.

2D Rf: Front 2

Enter the distance of the second front from the location of the two origins. Front 2 is limited to values of +240 to –240. You can edit the distance of the second front numerically or graphically.

2D Rf: Orientation

Enables you to adjust the orientation of the 2D Rf region if the sample is not placed in the instrument with a precise horizontal-vertical orientation. The orientation is limited to values –360° to +360°. You can edit the orientation of the 2D Rf region numerically or graphically.

SELECTION**DESCRIPTION OF USE****REPORT OPTIONS**

Displays the **Region Group Report Options** window (Figure 3-32).

Use as Default

Select the check box if you want the current parameters to be used every time you create a group of regions.

OK

Saves the parameters and closes the window.

CANCEL

Aborts the operation. Closes the window.

HELP

Displays online documentation that describes the function of the current window.

Edit Lane Points Window

The **Edit Lane Points** window (Figure 3-13) enables you to update the type and molecular weight of a selected lane point.

To display the **Edit Lane Points** window (a lane populated with lane points must be selected):

- ☐ Select **Edit Template** from the **Analysis** menu.

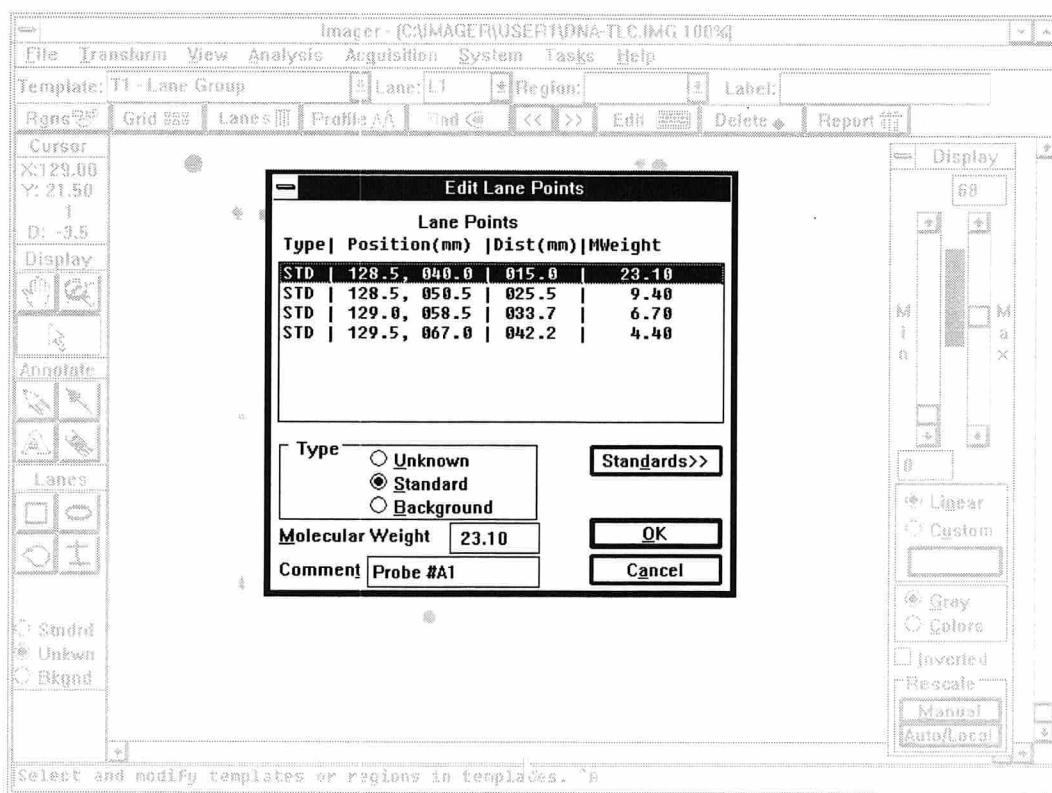


Figure 3-13. Edit Lane Points Window.

SELECTION**DESCRIPTION OF USE****Type: Unknown**

Changes the type of the selected lane point to an unknown. UNK is listed in the Type column.

Type: Standard

Changes the type of the selected lane point to a standard. STD is listed in the Type column.

Type: Background

Changes the type of the selected lane point to a background. BCK is listed in the Type column.

Molecular Weight

Enter the molecular weight of the selected lane point.

Comment

Enter a brief comment that identifies the standard. Used in the default list only.

<u>SELECTION</u>	<u>DESCRIPTION OF USE</u>
STANDARDS	Displays a list of molecular weight standards. Copy all or selected standards from the list.
COPY	Copies the selected molecular weight to the selected lane point. Enables you to selectively update the molecular weight of the lane points.
COPY ALL	Copies the list of molecular weight standards to the lane points. The first standard in the list is copied to the first point in the lane, the second standard in the list is copied to the second lane point in the list, etc. Enables you to globally update the molecular weight of the lane points.
BROWSE	Displays the Select Molecular Weight Standards window (Figure 3-37). Enables you to load an alternate list of molecular weight standards.
Units:	Select the drop-down arrow to display a list of standards units. Select a unit from the list. The selected unit is applied to the molecular weights listed in the window.
OK	Confirms changes made to the lane points and closes the window.
CANCEL	Aborts the operation and closes the window.

Edit Region Window

The **Edit Region** window (Figure 3-14) enables you to display information about the selected region and allows you to change its properties.

To display the **Edit Region** window:

- ☐ Double click on the region's tag (when the pointer becomes a pointing finger).

Or,

- ☐ Single click on the region's tag.
- ☐ Select **EDIT** from the template bar or **Edit Template** the **Analysis** menu.

The following information is displayed at the top of the window:

- The region's number and shape.
- The gross counts in the region.
- The area of the region in square millimeters.
- The coordinates of the region's center of gravity (centroid).

Any changes you make affect the parameters of the selected region only.

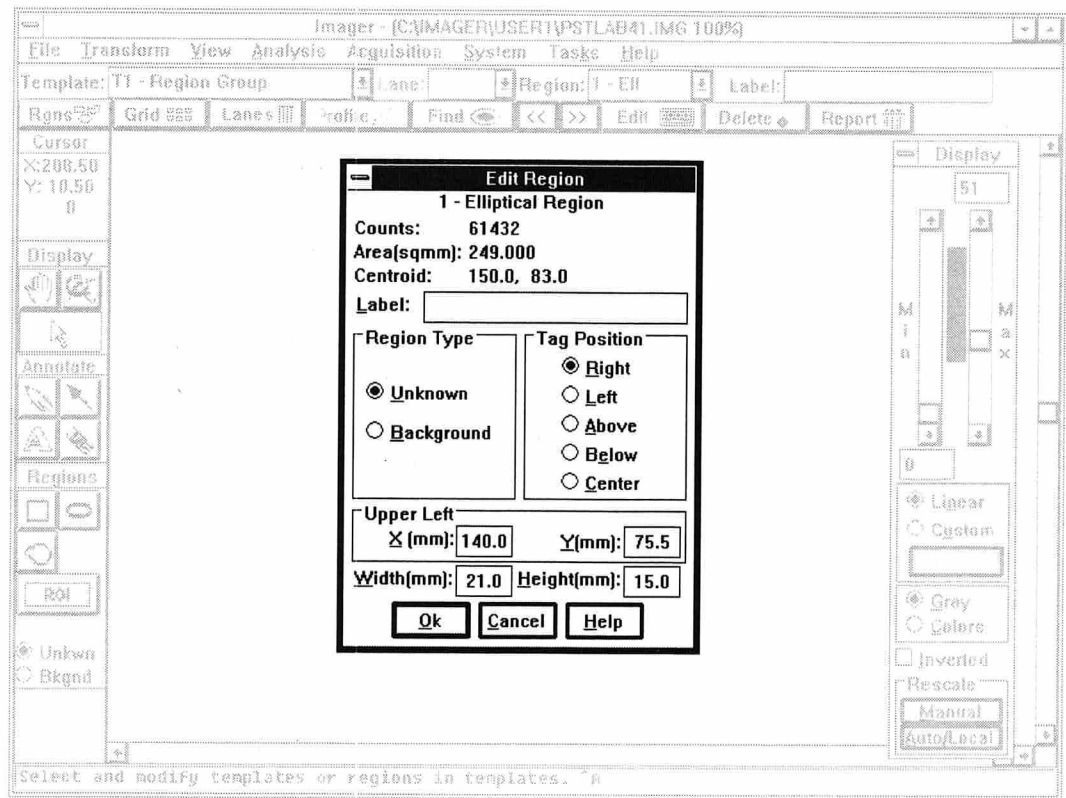


Figure 3-14. Edit Region Window.

SELECTION**DESCRIPTION OF USE****Label**

Edit the label assigned to the current region.

**Region Type:
Unknown/Background**

Select the region type: Unknown or Background. Regions are created as unknown or background depending on the region qualifier selected in the tool box when the region is drawn.

**Tag Position:
Right, Left, Above, Below,
Center**

Select the placement of the tag relative to the position of the region: to the Right, Left, Above, Below or in the Center.

**Upper Left: X(mm)
Y(mm)**

Edit the X and Y coordinates of the upper left corner of an ellipse or rectangle, or of the origin of an irregular region.

Width (mm)

Edit the width of a rectangle or ellipse. This box is blank when the region is irregular.

The width of the region is measured in millimeters.

Height (mm)

Edit the height of a rectangle or ellipse. This box is blank when the region is irregular.

The height of the region is measured in millimeters.

OK

Saves the parameters and updates the region. The region becomes the selected object on the image.

CANCEL

Aborts the operation. Closes the window.

Edit Time Series

The **Edit Time Series** window (Figure 3-15) allows you to enable the Time Series Acquisition mode (see page R200) and modify the parameters specific to this mode.

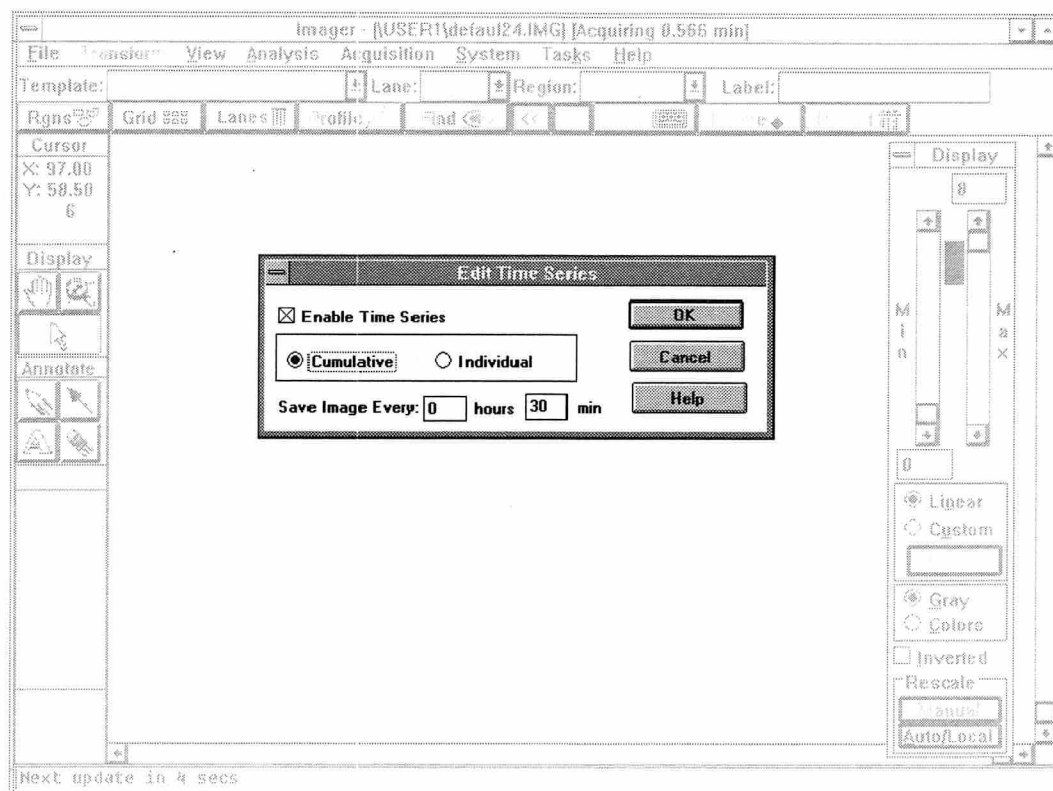


Figure 3-15. Edit Time Series Window.

Time Series Acquisitions are a user based function, and are NOT protocol dependent. Once you enable Time Series for a given user, the acquisitions for ALL protocols of that user will be Time Series until you disable it again. You may find that you want to create a separate Time Series User, just for this purpose.

SELECTION**DESCRIPTION OF USE****Enable Time Series**

Mark this check box to enable Time Series Acquisitions for this user. All acquisitions for this user will use the Time Series mode until you specifically disable it again.

Cumulative

Mark this selection if you want *cumulative* images to be acquired for your Time Series. Cumulative images are NOT cleared between intervals, so that later images are an accumulation of all previous intervals in the series.

Individual

Mark this selection if you want *individual* images to be acquired for your Time Series. Individual images are cleared after each acquisition interval so that each image represents ONLY one time interval.

Save Image Every

Enter the time interval for the Time Series. The value must be between one minute and 540 hours. You can enter the value in any combination of hours and minutes. When you change fields, the hours and minutes will be recalculated for proper display notation.

OK

Saves the parameters and updates the acquisition mode to Time Series. Closes the window.

CANCEL

Aborts the operation. Closes the window.

HELP

Displays online documentation that describes the function of the current window.

File Export Window

The **File Export** window (Figure 3-16) enables you to export images to other software applications, such as word processing, desktop publishing, or graphics programs. You can choose between several file formats depending on the program to which you want to transfer the image.

Images are exported just as they appear on the screen. Templates and annotations are exported along with the image.

To display the **File Export** window:

- ☐ Select **Export** from the **File** menu.

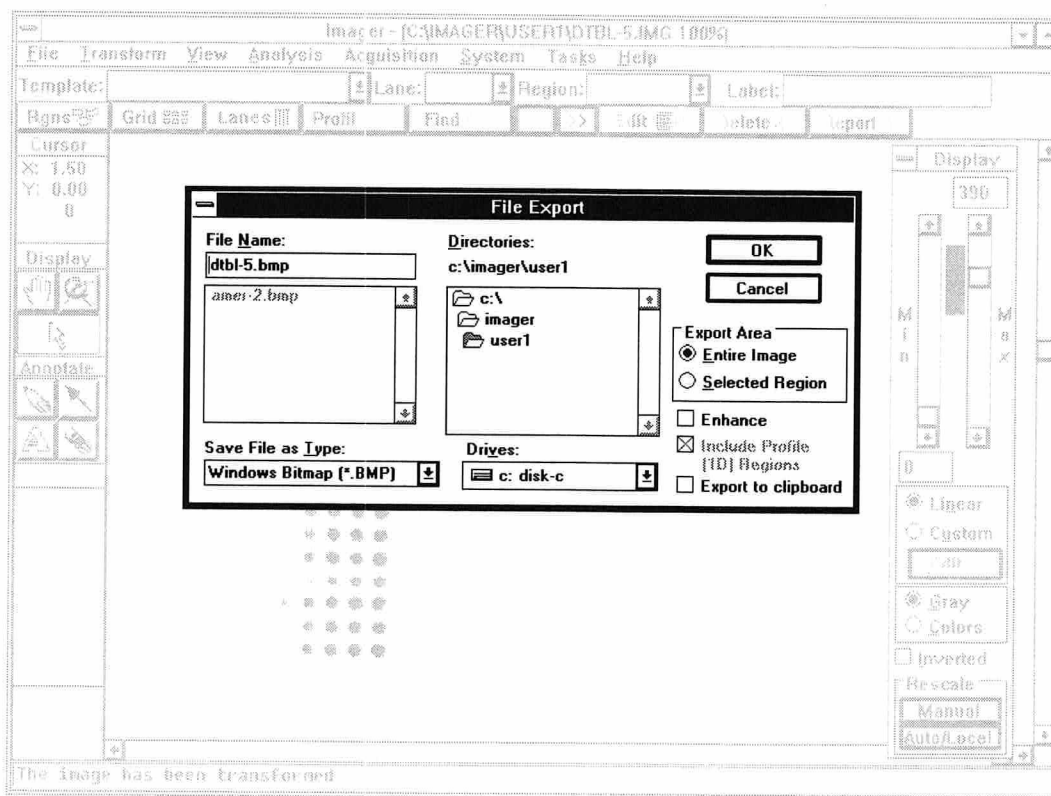


Figure 3-16. File Export Window.

SELECTION

DESCRIPTION OF USE

Filename:

Enter the filename to which the image will be exported. The correct extension (suitable for the selected file format) is added automatically.

Filenames of the selected type on the current directory will be listed below this box. Select one of these filenames to enter it in the Filename box.

List Files of Type

Select the appropriate type of file format. Select the drop-down arrow to see the list of available file formats. Select one of these file formats from the list

Directories:

The current directory is displayed above the box. Select a different directory by double clicking on a directory in the list. This will be the directory to which you will save the exported image.

Drives:

The default disk drive is listed in the box. Optionally select the drop-down arrow to select another drive from the list.

**Export Area:
Entire Image**

Select this option to export the entire displayed image.

**Export Area:
Selected Region**

Select this option to export a selected region of the image.

The system enables you to draw a rectangle on the image when you leave the window. The portion within the rectangle is exported.

SELECTION

DESCRIPTION OF USE

Enhance

Amplifies areas of low activity and smooths the edges of features in the exported image. Smoothing helps to minimize the “blocky” appearance of some images.

The default selection (when “Enhance” is NOT checked) improves the resolution of the image. For example, what appears as one indefinite form on the screen appears as two distinct forms on the exported image.

**Include Profile
(1D) Regions**

When you select this checkbox, any profile (1D) regions in the area will be included in the export. You can only export an image when the 2D image has the focus. When the 2D image has the focus, the profile (1D) regions are not displayed on the image.

Export to Clipboard

Select this check box to export the image to the Windows Clipboard, rather than to a file.

OK

Saves the image to the selected file or to the Clipboard.

CANCEL

Aborts the operation. Closes the window.

Find Regions Window

The **Find Regions** window (Figure 3-17) enables you to run the find regions process. This process enables the system to automatically find and create regions on an image.

Most samples, including two dimensional TLC plates, two dimensional electrophoresis gels, and tissue sections can be quantitated by placing regions on the image. You can quantitate regions by either 1) manually drawing regions within a group on the image, or 2) using the Find Regions window to automatically place regions on the image within a group.

The system uses three user-specified parameters as it automatically locates and creates regions of interest:

- Separation.
- Sensitivity.
- Background.

Separation ensures that all relevant pixels (those that contain the most significant number of counts) will be included in a region.

Sensitivity determines how well the system detects all regions of interest in an image. Higher degrees of sensitivity helps to insure that more regions will be found by the system.

Background determines the amount of background that will be allowed in the image. The amount of background you specify will be subtracted from every pixel in the region.

You can specify the shape or type of region you want created:

- Irregular: creates irregularly shaped regions.
- Elliptical: creates elliptically shaped regions.

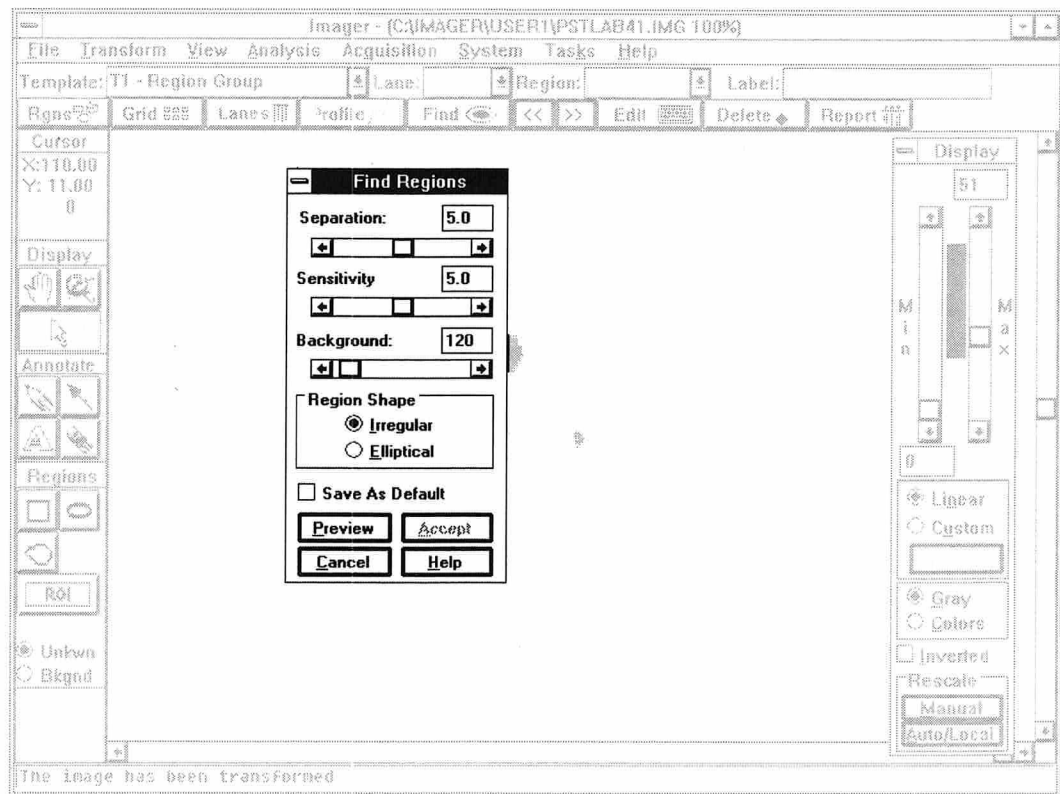


Figure 3-17. Find Regions Window.

The process of automatically finding regions includes the following steps:

1. Create a region group.
2. Specify the parameters.
3. Preview the regions.
4. Accept the regions.

Each step is discussed in detail in the section *Finding Regions Automatically*, in the chapter *Using Groups of Regions*.

The following selections appear at the **Find Regions** window:

SELECTION**DESCRIPTION OF USE****Separation**

Determines how many pixels are included in each region of interest (those pixels that contain the most significant number of counts). The higher the number, the greater degree of separation.

Sensitivity

Enables the system to detect regions. The more sensitivity (the higher the number), the more regions that will be found and created.

Background

Enables you to determine the amount of background on the image. This background amount will be subtracted from every pixel in the region.

Save As Default

If this checkbox is selected when you close the **Find Regions** window by accepting a set of previewed regions, the current parameter setting will be saved as the default settings.

**Region Shape:
Irregular**

Creates irregularly shaped regions.

**Region Shape:
Elliptical**

Creates elliptically shaped regions.

PREVIEW

Starts the find regions process. Deletes any pre-existing regions. Creates regions of interest based on the current parameters. Process bars will appear on the screen informing you of the % complete of the find regions process. You can terminate the find regions process by selecting **CANCEL** in any of the process bars. The regions will be displayed on the image so that you can see the results. These regions will not be a permanent part of the template until you select **ACCEPT**.

SELECTION

DESCRIPTION OF USE

ACCEPT

This selection is grayed (inactive) until a set of regions has been previewed. When you choose **ACCEPT**, the currently previewed regions will become a permanent part of the template and the **Find Regions** window will close. If any regions already exist for this group of regions, a window will appear asking if the previously existing regions in the selected ROI should be deleted. Select **YES** to delete all regions that exist within the ROI. Select **NO** to retain all regions that exist within the ROI. Select **CANCEL** to terminate the process and return to the **Find Regions** window.

CANCEL

Select **CANCEL** to close the **Find Regions** window without making any previewed regions a permanent part of the template.

HELP

Displays online help about the window.

Font Window

The **Font** window (Figure 3-18) enables you to select the font and corresponding font style and point size for the annotation text.

To display the **Font** window:

- ☐ Select **Font** from the **Text Annotation** window.

The **Text Annotation** window (Figure 3-43) enables you to place comments (annotations) over selected regions of an image.

The **Font** window offers three lists from which you can make selections: 1) The Font list, 2) The Font Style list, and 3) The Size list. As you peruse the Font list, the corresponding font style and point size are displayed. Note that each font shares common styles, and that each font offers unique point sizes.

The currently selected font name, style name, and font size are displayed in the box at the top of each respective list. These change to reflect the current selection.

An example of each font, style, and point size is displayed in the Sample area window as you make your selections. This feature enables you to experiment with the variety of fonts, styles, and sizes before making a final selection.

Selecting **OK** accepts your font selections and closes the window.

The font (style and size) that you select should be suitable for the area of the image to which the comment is to be applied. For example, if you need to make a comment over a cluttered region of the image, the text should be bold enough and large enough to be seen.

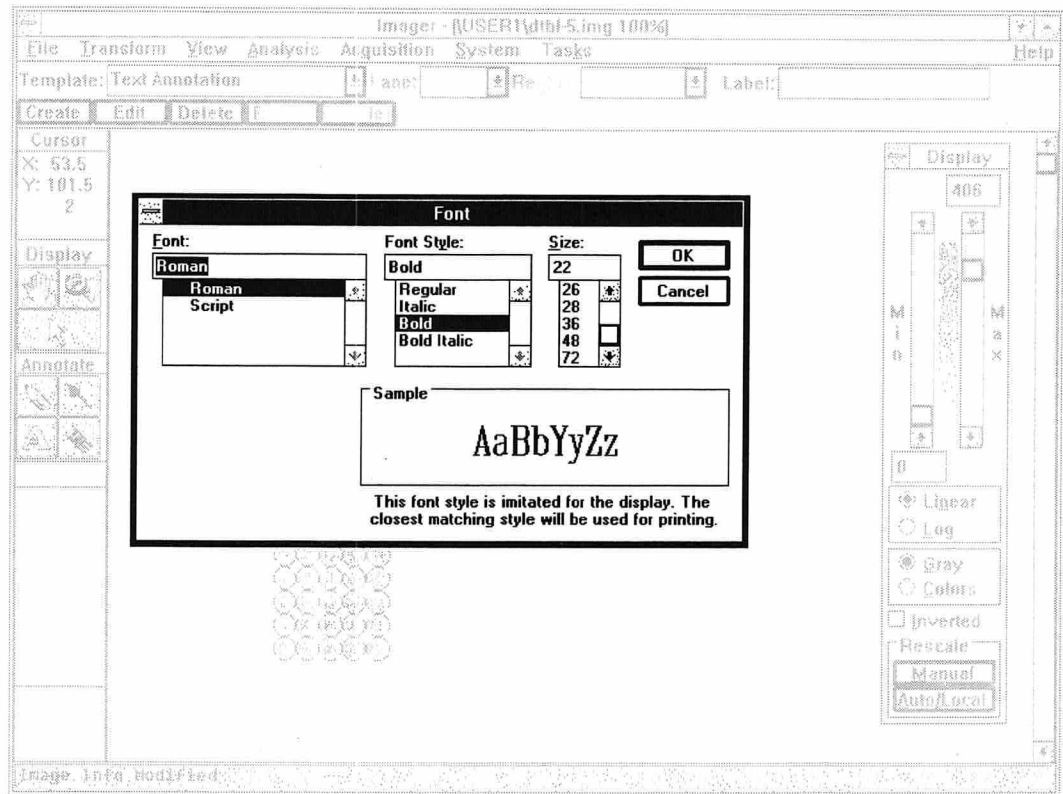


Figure 3-18. Font Window.

SELECTION

DESCRIPTION OF USE

Font:

Select a font by clicking on the font name in the list. An example of the font is displayed in the Sample area of the window.

Font Style:

Select a suitable font style by clicking on the style name in the list. An example of the font style is displayed in the Sample area of the window.

Size:

Select a suitable point size by clicking on the number in the list. An example of the point size is displayed in the Sample area of the window.

OK

Accepts the font selections and closes the window.

CANCEL

Ignores any changes and closes the window.

Grid Report Options Window

The **Grid Report Options** window (Figure 3-19) enables you to report the results obtained from a grid template.

The **Grid Report Options** window can be displayed in the following ways:

- ☐ By selecting **Report Template** from the **Analysis** menu.
- ☐ By selecting **REPORT** from the template bar.
- ☐ By selecting **REPORT PARAMETERS** from the **Grid Template Parameters** window (Figure 3-20).

The current grid template must be selected before any results can be reported.

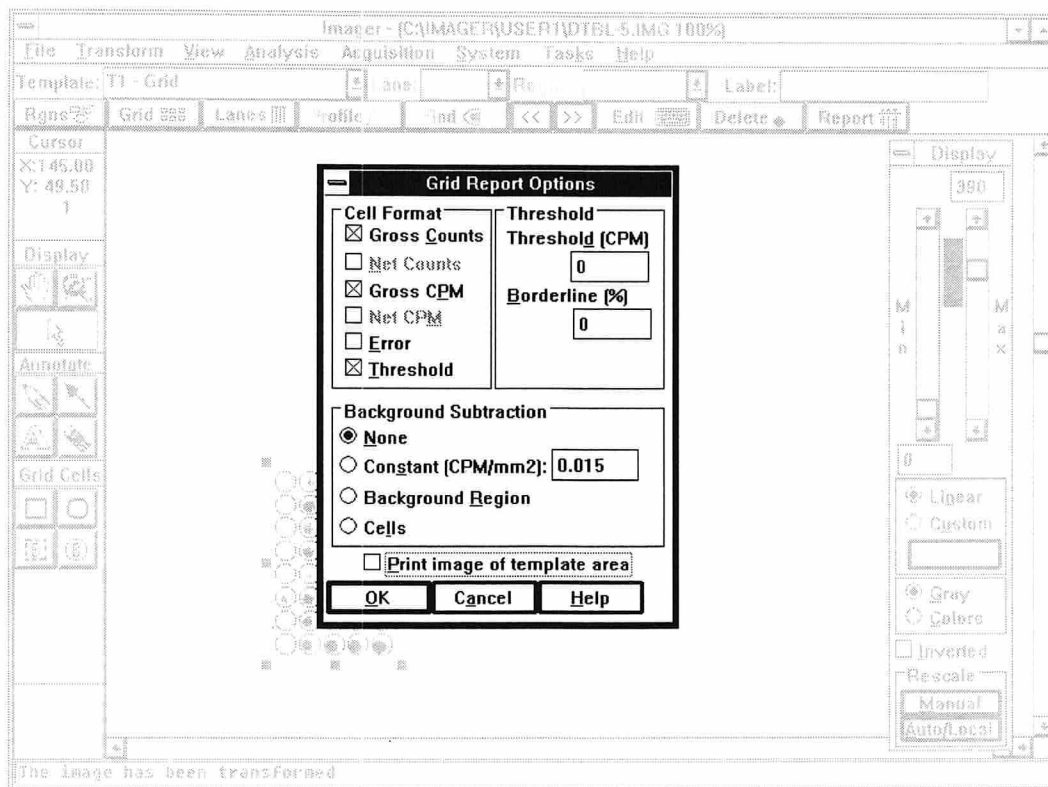


Figure 3-19. Grid Report Options Window.

SELECTION**DESCRIPTION OF USE****Cell Format:
Gross Counts**

The total counts in the cells are reported.

**Cell Format:
Net Counts**

The total counts minus the calculated background for each cell are reported. This option is grayed out when "Background Subtraction" is set to "None."

**Cell Format:
Gross CPM**

The total counts per minute in the cells are reported.

**Cell Format:
Net CPM**

The total counts per minute minus the calculated background for each cell is reported. This option is grayed out when "Background Subtraction" is set to "None."

**Cell Format:
Error**

The statistical counting error as a % is reported.

**Cell Format:
Threshold**

The output of each cell is set to "+" or "-", depending on whether the CPM in the cell is greater than or less than or less than the threshold parameter you indicate (below).

Threshold [CPM]

Enter the CPM threshold value. The output of each cell is set to "+" or "-" depending on whether the CPM in the cell is greater than or less than the value you enter.

Borderline [%]

Enter the borderline value, expressed a percentage of the threshold value. CPM values that are within the borderline of the threshold are assigned a "?".

SELECTION

DESCRIPTION OF USE

**Background
Subtract: None**

Indicates that no background subtraction is to be done. When this option is selected, the "Net Counts" and "Net CPM" report options are grayed inactive.

**Background Subtract:
Constant (CPM/mm²)**

Enter the value for the amount of background subtraction in terms of CPM/mm².

**Background Subtract:
Background Region**

The background subtraction is determined by the CPM/mm² of the background region(s). This selection is grayed inactive if no background regions have been defined for the grid template.

**Background Subtract:
Cells**

The background subtraction is determined by the CPM/mm² of the background cells. This selection is grayed inactive if no background cells have been defined for the grid template.

**Print Image of
Template Area**

Prints the grid over which the selected template is placed when the report is generated. The image is printed at 50% of the actual size.

OK

Generates the report

CANCEL

Aborts the operation. Closes the window.

HELP

Displays online help about the window.

Grid Template Parameters Window

The **Grid Template Parameters** window (Figure 3-20) enables you to specify the parameters of a grid template. Samples organized in a regular array such as a dot blot or slot blot, can be analyzed with a grid template.

The grid you create is displayed over the current image.

To display the **Grid Template Parameters** window:

- ☐ Select **Create Template** from the **Analysis** menu or **GRID** from the template bar.

The **Create Template** window is displayed (Figure 3-6).

- ☐ Select "Grid".
- ☐ Select **OK**.

You can also display the **Create Template** window by:

- ☐ Selecting **EDIT** in the template bar or **Edit Template** from the **Analysis** menu when a grid is highlighted.

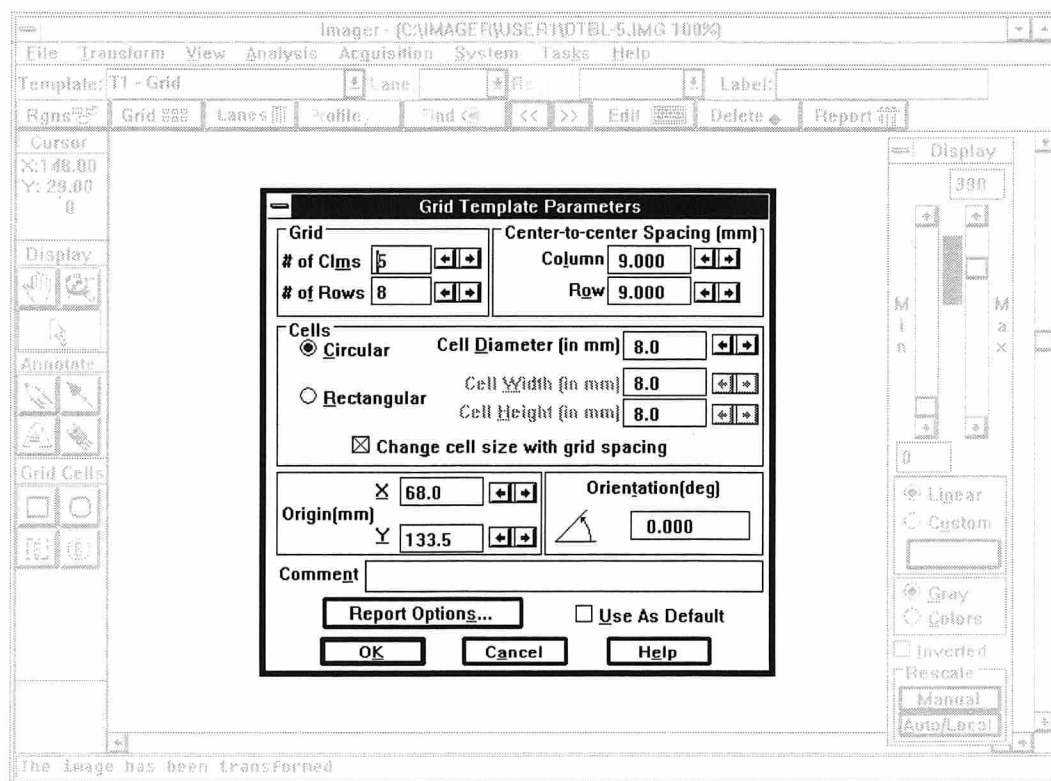


Figure 3-20. Grid Template Parameter Window.

SELECTION**DESCRIPTION OF USE****Grid: #Clms, #Rows**

Specify the number of columns and rows in the grid.

**Center-to-Center
Spacing: Column, Row**

Specify the spacing of the columns and rows in the grid (the spacing is measured in millimeters).

Cells: Circular

Select this option to create circular cells in the grid. You must specify the diameter of the circular cells.

Cells: Rectangular

Select this option to create rectangular cells in the grid. You must specify the width and height of the rectangular cells.

**Cell Diameter
(in mm)**

Specify the diameter of the circular cells in the grid (if circular cells are selected). The diameter of the cells is measured in millimeters.

Cell Width (in mm)

Specify the width of the rectangular cells in the grid (if rectangular cells are selected). The width of the cells is measured in millimeters.

Cell Height (in mm)

Specify the height of the rectangular cells in the grid (if rectangular cells are selected). The height of the cells is measured in millimeters.

**Change cell size
with grid spacing**

Select the check box to have the size of the cells change when you edit the overall size of the grid graphically. The proportion of the cell size to the spacing is maintained in the modified dimensions.

SELECTION**DESCRIPTION OF USE****Origin: X,Y (mm)**

Specify the cursor coordinates on the image where the center of the cell A1 should be placed.

Orientation (deg)

Adjust the orientation of the grid if the sample is not placed in the instrument with a precise horizontal-vertical orientation.

Comment

Enter a comment that will be printed when results are reported with the template.

Use as Default

Select the check box if you want the current parameters to be used every time you create a grid.

REPORT PARAMETERS

Displays the **Grid Report Options** window (Figure 3-19).

OK

Saves the parameters and creates the grid. The grid becomes the selected object on the image.

CANCEL

Aborts the operation. Closes the window.

HELP

Displays online documentation that describes the function of the current window.

Image Information Window

The **Image Information** window (Figure 3–21) displays statistics about the image displayed on the screen.

To display the **Image Information** window:

- ☐ Select **Image Information** from the **View** menu.

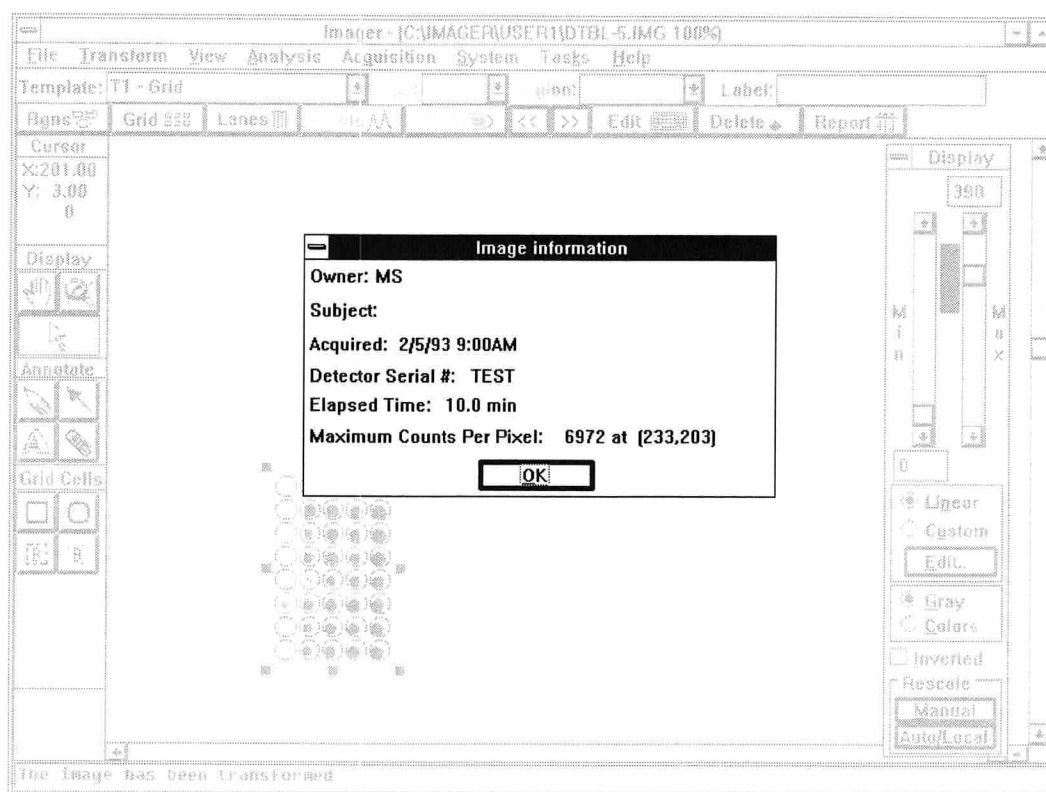


Figure 3–21. Image Information Window.

SELECTION

DESCRIPTION OF USE

Owner

The name or initials of the individual responsible for the acquisition.

Subject

The image's main area of interest.

Acquired

The date and time the image was acquired.

Elapsed Time

The total count time taken to acquire the image.

Maximum Counts

The highest concentration of counts per pixel. The maximum pixel location is displayed in parenthesis.

OK

Closes the window.

Imager Users Window

The **Imager Users** window (Figure 3–22) contains a list of all the users that have Imager icons on the Imager Start Menu or program group.

Each user of the InstantImager can have their own icon to start the program. Each icon that is created can start an individual instance of the InstantImager program. Each instance of the program saves all data and other files to the user's specific directory on the hard disk.

From the **Imager Users** window you can:

- Add new user icons (accounts).
- Edit existing user icons.
- Select basic file operations such as view and delete.
- Select user preferences such as template, annotation, and helpline colors.

To display the **Imager Users** window:

- ☐ Select the “Imager Users” icon from the Start Menu or Program Manager.

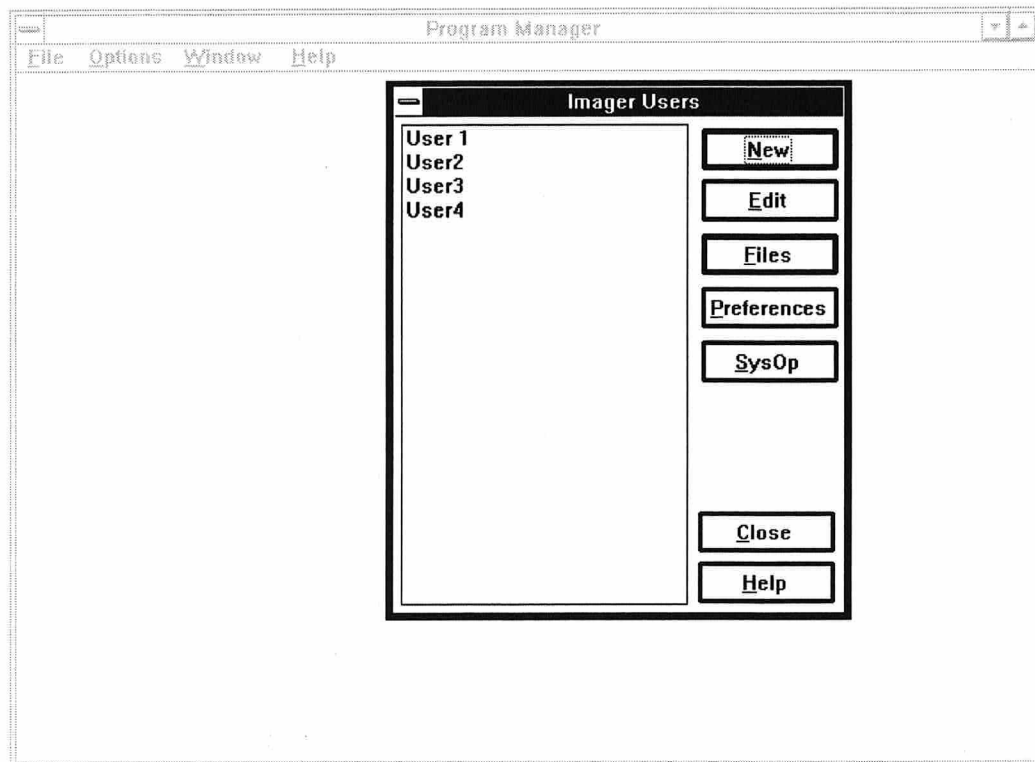


Figure 3-22. The Imager Users Window.

SELECTION

DESCRIPTION OF USE

NEW

Displays the **User Information** window. This window enables you to add a new user icon to the system.

EDIT

Select a user from the list, and click on the **EDIT** button to display the **User Information** window. At this window you can change the name of the user's Imager icon, the user's directory, or the user's quota.

FILES

Select a user from the list and click on the **FILES** button to display the **Users Images** window. This window enables you to perform basic file operations on the image files of a selected user.

PREFERENCES

Select a user from the list and click on the **PREFERENCES** button to display the **User Preferences** window. This window enables you to customize the template color, annotation color, helpline color, update frequency, and intensity levels of display for the selected user.

SYSOP

Displays the **System Operator** window. This window enables the system administrator to: 1) assign system passwords, 2) enable user password protection, 3) enable user password access, 4) enable usage logging.

CLOSE

Exits the Imager User program.

HELP

Displays online help.

InstantImager Window

The **InstantImager** window (Figure 3-23) is the main window within the system. It is displayed when you start the InstantImager application from the Start Menu or Program Manager. Access to any function starts from this window.

All of the commands that you use to acquire, view, edit, and analyze a sample image can be selected from the menus available from the InstantImager window.

Callouts for Figure 3-23

1. The system is identified at the top of the window. The name of the loaded image is displayed in brackets.
2. The menu bar lists all available menu selections. Each menu offers a variety of selections and commands.
3. The template bar contains a row of drop-down menus and a row of command buttons.

Drop-down menus:

Template Menu: Displays the name of the template that is currently highlighted. Selecting the drop-down arrow displays a list of templates; select a template from the list.

Lane Menu: When a lane template is selected, displays the name of the lane that is currently highlighted. Selecting the drop-down arrow displays a list of lanes; select a lane from the list.

Region Menu: When a region group or lane template is selected, displays the name of the region that is currently highlighted. Selecting the drop-down arrow displays a list of regions; select a region from the list.

Label Box: Enables you to assign a name to the highlighted lane or region; useful for reporting purposes.

Command Buttons:

Rgns: Creates a group of regions template.

Grid: Creates a grid template.

Lane: Creates a lane template.

Profile: Profiles a lane. Grayed out if a lane template is not selected.

Find: Finds regions of activity. Grayed out if a group of regions template is not selected.

<< Previous: Moves the focus to the previously listed region, template, or annotation.

>> Next: Moves the focus to the next listed region, template, or annotation.

Edit: Edit a template numerically. Grayed out if no template is selected.

Delete: Delete a template or region. Grayed out if no template is selected.

Report: Report results from a template. Grayed out if no template is selected.

4. The image location of the mouse pointer is displayed in the cursor box. The current X and Y coordinates of the mouse pointer are dynamically reported as you move the mouse. When a lane template is selected, the distance from the sample origin is displayed.
5. The tool box is displayed to the side of the window. It is divided into two areas: Display and Annotation. Each area contains selectable icons.

The Display area contains the Pointer icon, the Magnifying Glass icon, and the Hand icon. Use the Pointer tool select and edit objects on the image; use the Magnifying Glass tool to magnify (zoom) and demagnify the image; use the Hand tool to move the magnified image around the screen.

The Annotation area contains the Pencil icon, Arrow icon, Text Tool icon, and Eraser icon.

The Pencil tool enables you to draw line segments and arbitrary traces. The Arrow tool enables you to draw arrows that point to specific items of interest on the image. The Text tool enables you to write comments upon the image. The Eraser tool enables you to erase annotations.

6. The **Display** window enables you to control the display by fine tuning specific features of the image. You can position the **Display** window anywhere on the screen. It is recommended that you position it at the edge of the screen (right side), so that it does not interfere with the image.
7. The help line displays information about areas of the screen and functions you are performing.

When an image is acquiring, the following information about the acquisition will be displayed: Time Remaining and The CPM of the sample.

Time Remaining: The time remaining until the next screen update will be counted down. If the time remaining is greater than 1 minute, the time will be expressed in minutes. If the time remaining is less than 1 minute, the time will be expressed in seconds.

The CPM of the Sample: The CPM of the entire sample is displayed. If any pixel is overflowed, the CPM will no longer be displayed; rather, a message stating that a pixel has saturated will be displayed.

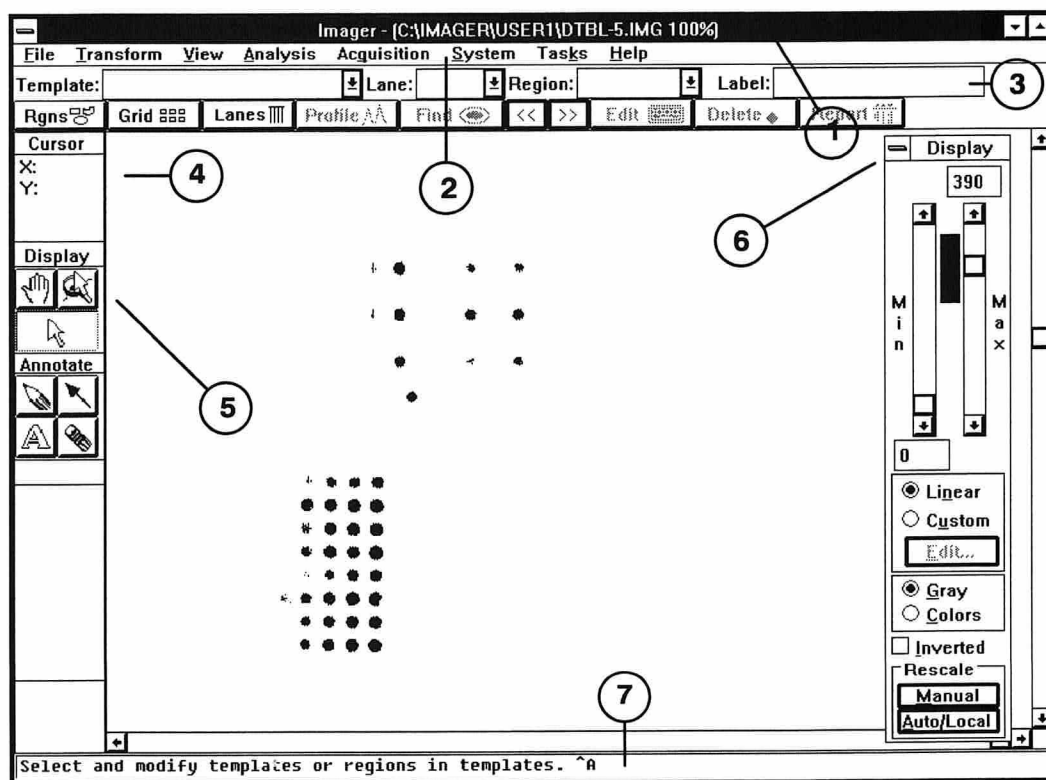


Figure 3-23. InstantImager Window.

Lane Group Report Options Window (2D Regions)

The **Lane Group Report Options** window (Figure 3-24) enables you to report the results obtained from a lane template.

You can display the **Lane Group Report Options** window in the following ways:

- ☐ By selecting **Report Template** from the **Analysis** menu.
- ☐ By selecting **REPORT** from the template bar.
- ☐ By selecting **REPORT OPTIONS** from the **Lane Template Parameters** window (Figure 3-25).

The current lane template must be selected before any results can be reported.

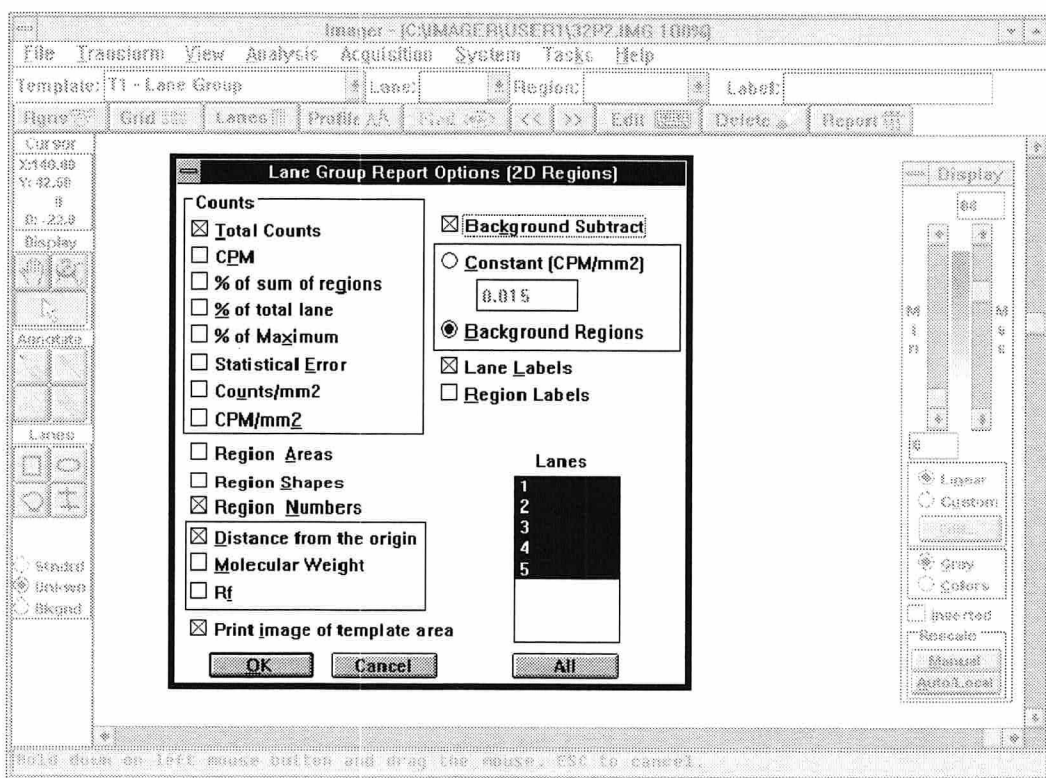


Figure 3-24. Lane Group Report Options Window.

SELECTION**DESCRIPTION OF USE****Counts:
Total Counts**

Reports the sum of the counts in the pixels within the regions.

Counts: CPM

Divides the total counts in the regions by the counting time.

**% of Sum of
Regions**

Reports the counts in each region in a lane as a fraction of the sum of the activity in all regions in the lane.

% of Total Lane

Reports the counts as a fraction of the total counts in the lane.

% of Maximum

Reports the counts in each region in the lane as a fraction of the total counts of the maximum region in the lane.

Statistical Error

Reports the statistical counting error in percent.

Counts/mm²

Divides the total counts in the regions by the total area covered by the region.

CPM/mm²

Divides the CPM of the regions by the total area covered by the region.

Region Areas

Reports the area of each region in millimeters².

Region Shapes

Reports the shape of each region: ellipse, rectangle, irregular, or band.

SELECTION**DESCRIPTION OF USE****Region Numbers**

Reports the region number as listed in the template bar or in the region tags on the image. Regions are numbered in the order they are created.

Lane Labels

Reports the labels (if any) entered to identify the lanes as listed in the template bar.

Region Labels

Reports the labels (if any) entered to identify the regions. The labels are listed in the template bar or in the region tags on the image.

**Distance From
the Origin**

Reports the distance from the origin line of the centroid of the counts of the regions. The distance is reported in millimeters.

Molecular Weight

Reports the molecular weights of the unknown regions. This option is grayed out if molecular weight standards have not been defined.

Rf

Reports the Rf as a value between 0 and 1, with 0=0% and 1=100%. The Rf value is the distance from the line of origin to the top-most spot in the image. It is also the distance from the bottom of the template to the bottom-most spot in the image (within the template).

**Print Image of
Template Area**

Prints the area of the image within the rectangle that encompasses the template on the report (reported only when you print the report). The template overlay is printed on the image if it is shown on the screen.

SELECTION**DESCRIPTION OF USE****Lanes**

Select the lanes to be reported by highlighting the lane numbers in the box. If the entire lane template is the selected template object when the window is opened, all the lanes will be highlighted. If an individual lane is the selected template object, the lane will be highlighted.

Select a single lane number with the left mouse button, or drag the mouse over a range of numbers to select the range. Select **ALL** to highlight all the lanes. Use the **<Ctrl>** key along with the left mouse button to select any combination of lanes.

Background Subtract

Select this option and then one of the highlighted background subtracting methods below. With both methods the background value in CPM/mm² will be multiplied by the area of each region. This product will be subtracted from the CPM in the region.

**Background Subtract:
Constant (CPM/mm²)**

Select this option and enter a numerical value in CPM/mm².

**Background Subtract:
Background Regions**

Select this option to determine the background from a region or regions defined as background within each lane. The background value will be the sum of the CPM in the background regions divided by the total area of the regions. If no background regions exist, the amount of background subtraction will be 0.

ALL

Selects all of the lanes in the template.

OK

Generates the report.

CANCEL

Aborts the operation and closes the window.

Lane Template Parameters Window

The **Lane Template Parameters** window (Figure 3-25) enables you to define a template of lanes. Samples organized in lanes or tracks, as in one dimensional electrophoresis or thin layer chromatography, can be analyzed with a lane template.

The template you create is displayed over the current image.

To display the **Lane Template Parameters** window:

- ☐ Select **Create Template** from the **Analysis** menu.

The **Create Template** window is displayed (Figure 3-6).

- ☐ Select "Lanes".
- ☐ Select **OK**.

You can also display the **Lane Template Parameters** window by:

- ☐ Selecting **EDIT** in the template bar or **Edit Templates** from the **Analysis** menu when a lane template is highlighted.

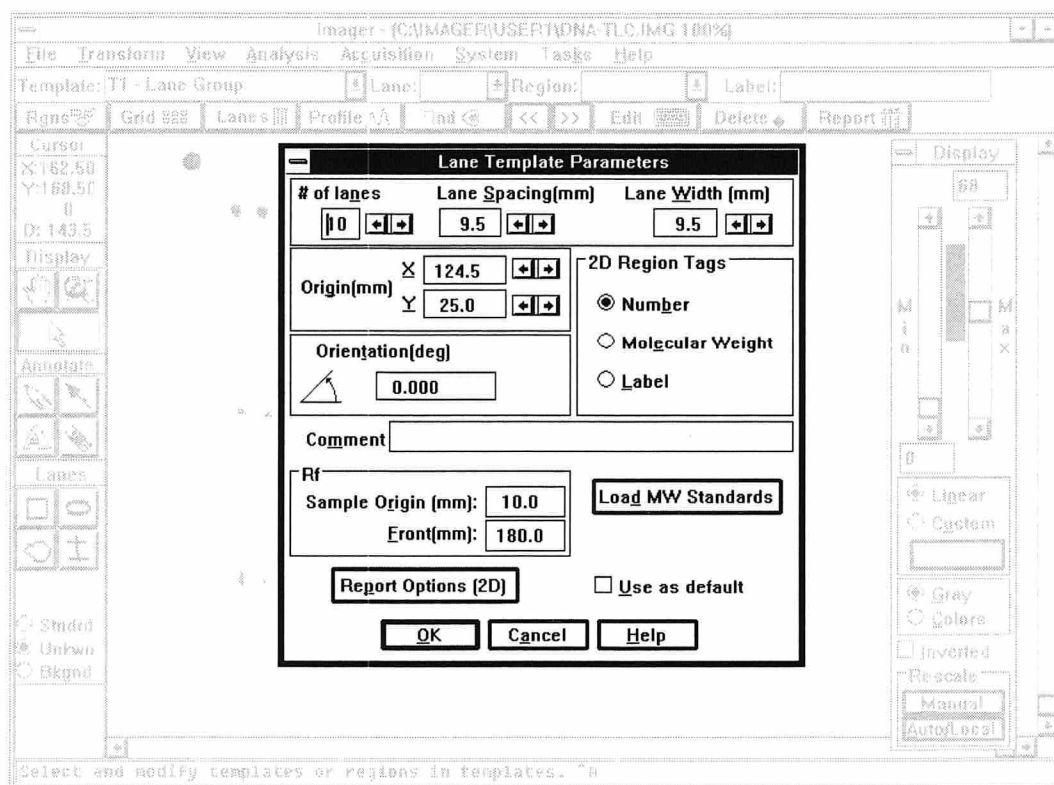


Figure 3-25. Lane Template Parameters Window.

SELECTION**DESCRIPTION OF USE****# of Lanes**

Specify the number of lanes in the template. The maximum number is 50.

Lane Spacing (mm)

Specify the spacing of the lanes (the spacing is measured in millimeters).

Profile Width (mm)

Specify the width of lanes for use in profiles (in millimeters). Make the width of the profiles smaller than the spacing of the lanes. If the profile width is greater than the lane spacing, it (the profile width) will be set to the value specified for the lane spacing.

All the lanes will be set to the profile width. However, the widths of the individual lanes can be changed by editing them on the screen (graphically).

Origin (mm) X,Y

Specify the X and Y coordinates of the outside edge of lane one. When creating a new template, these coordinates are near the center of the image as it appears on the screen.

Orientation (deg)

Adjust the orientation of the template if the sample is not placed in the instrument with a precise horizontal-vertical orientation.

**Region Tag:
Number**

Select this option to tag the regions on the image with the region number. Regions are always numbered from the origin of the template.

**Region Tag:
Molecular Weight**

Select this option to tag the regions on the image with the molecular weight. If the molecular weight standards are not defined, the regions are identified with numbers.

**Region Tag:
Label**

Select this option to tag the regions on the image with user-defined labels.

SELECTION**DESCRIPTION OF USE****Comment**

Enter a comment that will be indicated when results are reported with the template.

**Rf:
Origin (mm)**

Specify the distance (in millimeters) from the top of the template (line origin) to the sample origin (within the template).

**Rf:
Front (mm)**

Specify the the distance (in millimeters) from the top of the template to the solvent front (within the template).

Use as Default

Select the check box if you want to use the current parameters every time you create a template with this user. Graphically sized lane lengths are also saved with the default.

LOAD MW STANDARDS

Displays the **Select Molecular Weight Standards** window (Figure 3-37).

REPORT OPTIONS

Displays the **Lane Group Report Options** window (Figure 3-24).

OK

Saves the parameters and creates the template. The template becomes the selected object on the image.

CANCEL

Aborts the operation. Closes the window.

HELP

Displays online documentation that describes the function of the current window.

Load Acquisition Protocol Window

The **Load Acquisition Protocol** window (Figure 3–26) enables you to load a protocol file into the **Edit Acquisition Protocol File** window (Figure 3–9) or the **Acquisition Start Parameters** window.

To display the **Load Protocol File** window:

- ☐ Select **BROWSE** from the **Edit Acquisition Protocol File** window (adjacent to the Protocol File box).

Or,

- ☐ Select **BROWSE** from the **Acquisition Start Parameters** window.

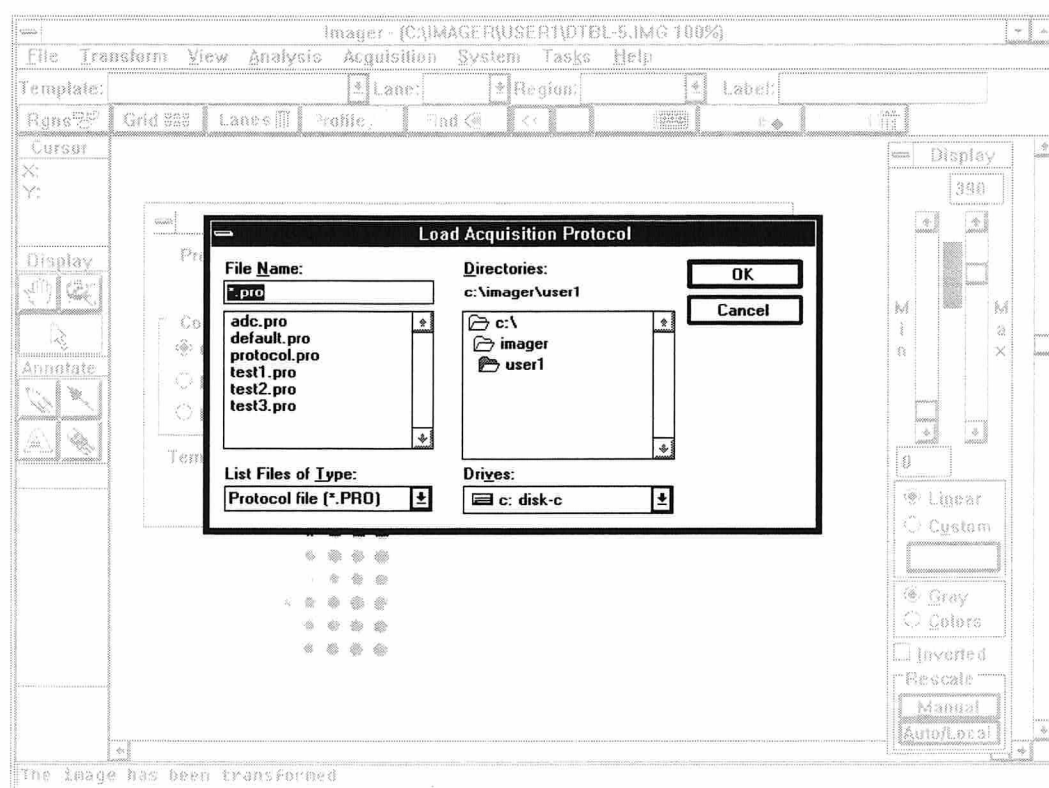


Figure 3–26. Load Acquisition Protocol Window.

SELECTION

DESCRIPTION OF USE

Filename:

Enter the filename of the protocol. The system automatically includes a .PRO extension.

Directory:

The current owner's directory.

Drives:

Select a different drive by optionally clicking on a drive in the list. (Note that the protocol must be saved to the owner's directory.)

Directories:

Select a different directory by optionally clicking on a directory in the list. See **Drives** above.

Files:

Select a protocol by clicking on a filename in the list. The system will load the file selected from this list.

OK

Loads the selected protocol. Closes the window.

CANCEL

Ignores the operation. Closes the window.

Load Template Window

The **Load Template** window (Figure 3-27) enables you to select and display a template over an image.

To display the **Load Template** window:

- ☐ Select **Load Templates** from the **Analysis** menu.

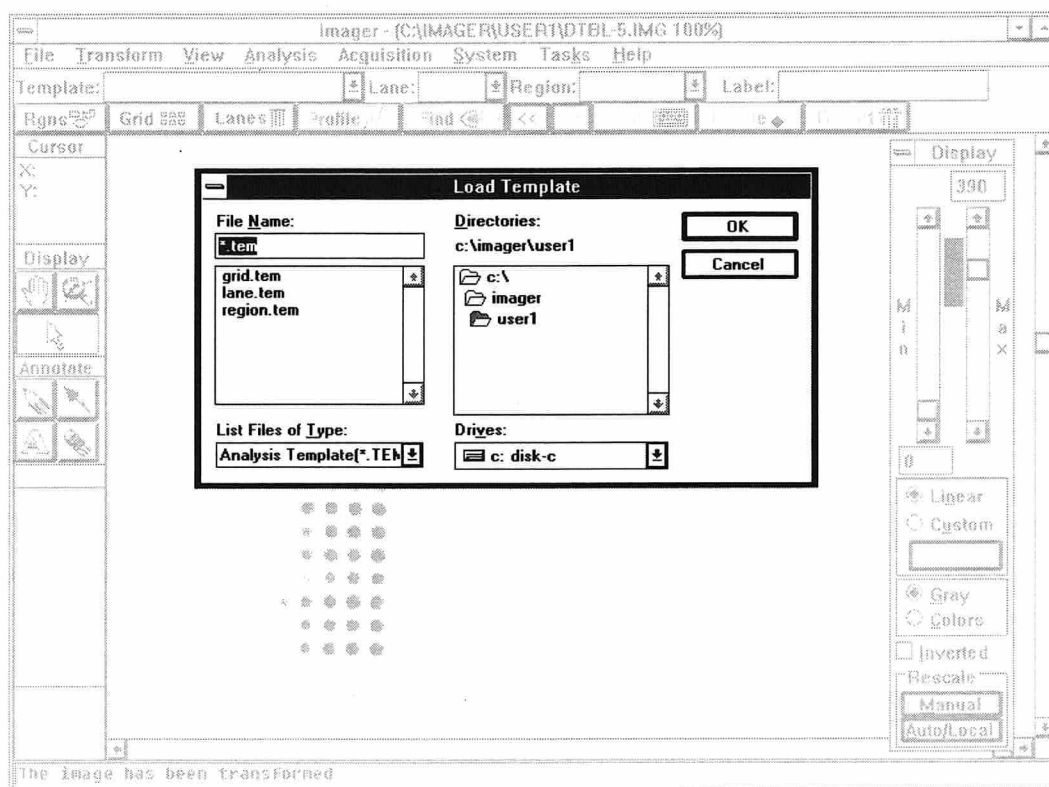


Figure 3-27. Load Template Window.

SELECTION

DESCRIPTION OF USE

Filename:

Enter the filename of the template. The system automatically includes a .TEM extension.

Directory:

The current owner's directory.

Drives:

Select a different drive by optionally clicking on a drive in the list. (Note that the template must be saved to the owner's directory.)

Directories:

Select a different directory by optionally clicking on a directory in the list. See **Drives** above.

Files:

Select a template by clicking on a filename in the list.

OK

Displays the selected template over the image. Closes the window.

CANCEL

Ignores the operation. Closes the window.

Mark Standard Window

The **Mark Standard** window (Figure 3–28) displays a list of standards that can be copied to the list of regions in the selected lane. An alternate list of standards can be loaded from a file.

The molecular weight and a comment is listed for each standard. The first standard in the list is highlighted.

To display the **Mark Standard** window:

- ☐ Select the **Stdnd** button in the tool box. (A lane template must be displayed).

To remove the window from view:

- ☐ Select the **Unkwn** option button or the **Bkgnd** option button in the tool box.

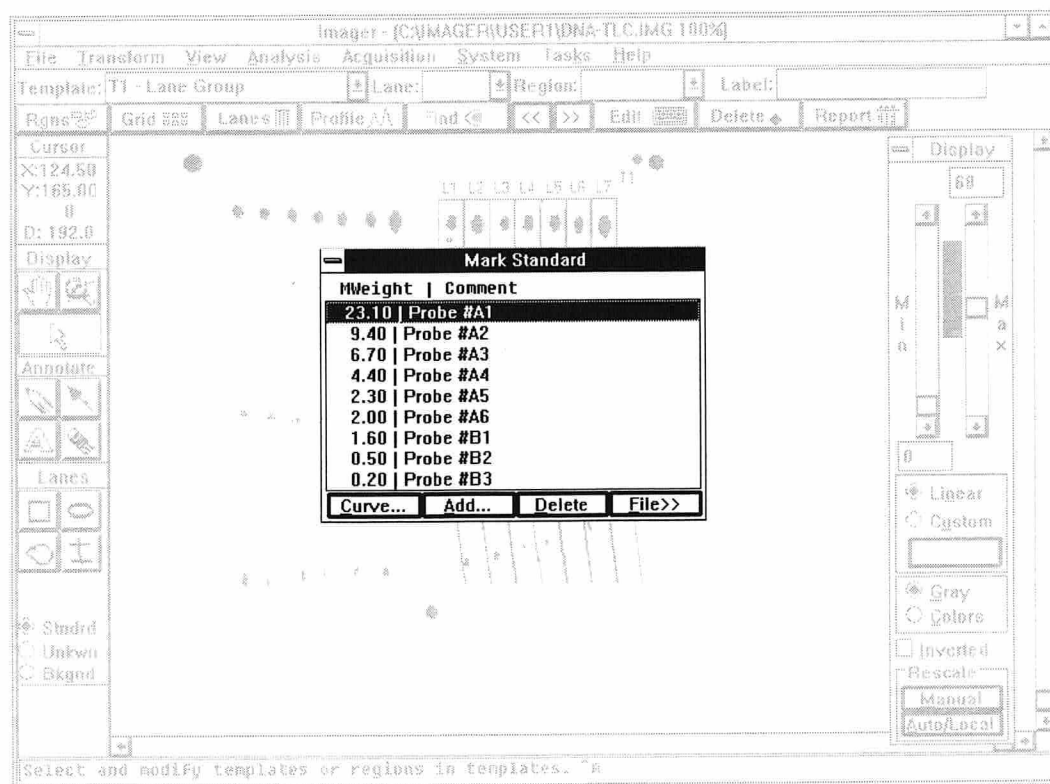


Figure 3–28. Mark Standard Window.

SELECTION

DESCRIPTION OF USE

CURVE

Displays the **Molecular Weight Standard Curve** window (Figure 3-29). Enables you to display the standard curve based on the selected curve fitting method and axis transformation.

ADD

Displays the **Add Standard to List** window (Figure 3-5). Enables you to add standards (including molecular weight and comment) to the default list.

DELETE

Deletes the highlighted standard.

FILE

Enables you to load an alternate standards file or save the current list to a file.

Molecular Weight Standard Curve Window

The **Molecular Weight Standard Curve** window (Figure 3–29) enables you to display the standard curve of the lane based upon the selected curve fitting method and the axis transformation. The system uses this curve to determine the molecular weights of unknowns.

The standard curve represents the relationship between distance and the molecular weight for the standards assigned in the lane. Distance is measured from the origin line to the standard.

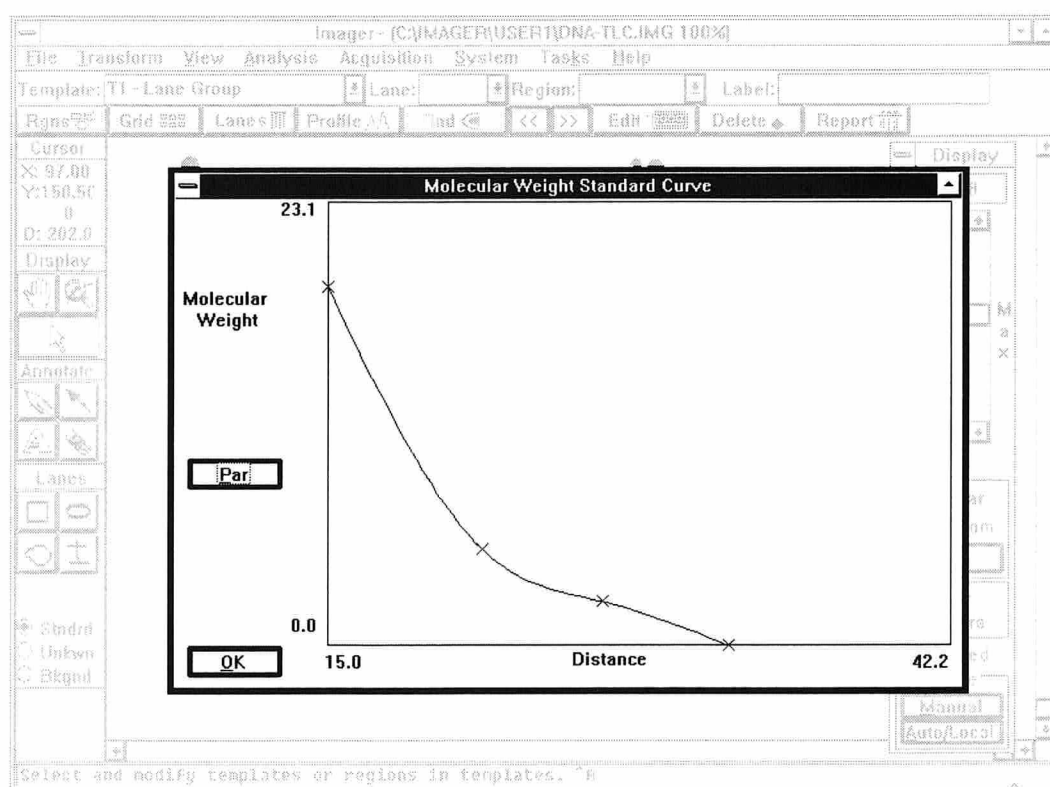


Figure 3–29. Molecular Weight Standard Curve Window.

SELECTION

PAR

DESCRIPTION OF USE

Displays the **Standard Curve Parameters** window (Figure 3–39). This window enables you to select the curve fitting method and the axis transformation for the standard curve.

OK

Closes the window.

Open Image Window

The **Open Image** window (Figure 3–30) enables you to select and display an image.

To display the **Open Image** window:

- ☐ Select **Open** from the **File** menu.

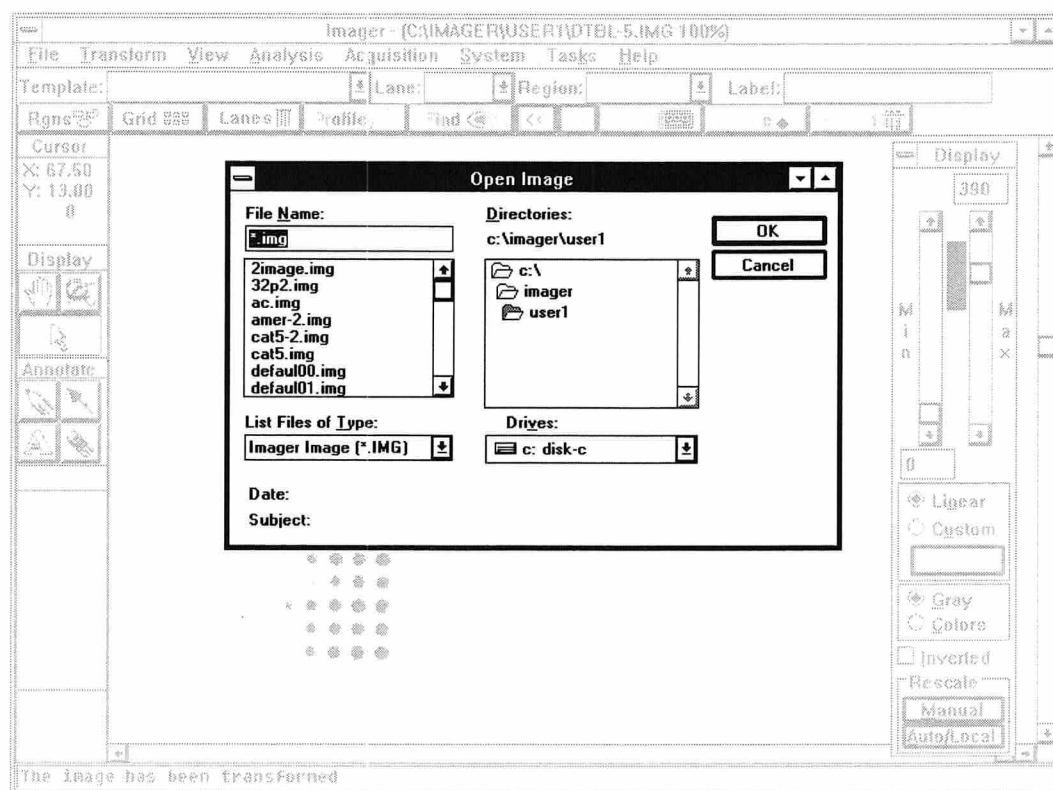


Figure 3–30. Open Image Window.

SELECTION

DESCRIPTION OF USE

Filename:

Enter the filename of the image. The system automatically includes a .IMG extension.

Directory:

The current owner's directory.

Drives:

Select a different drive by optionally clicking on a drive in the list. (Note that the image must be saved to the owner's directory.)

Directories:

Select a different directory by optionally clicking on a directory in the list. See **Drives** above.

Files:

Select an image by clicking on a filename in the list.

OK

Displays the selected image. Closes the window.

CANCEL

Ignores the operation. Closes the window.

Print Window

The **Print** window (Figure 3-31) enables you to print the entire image or a selected region of the image. The image can be printed at actual size or variable size. Selecting "Actual Size" prints the image with the dimensions of the actual sample size. Selecting "Variable Size" enables you to print the image within a user-specified range of from $\frac{1}{4}$ (25%) of the actual sample size to 4X (400%) the actual sample size.

If the image is too large for the printed page, due to its magnification (over 100% of the actual sample size), only the upper left hand section of the image or of the selected region of the image will be printed.

The printer being used is displayed at the top of the window, along with the selected printer port.

To display this window:

- ☐ Select **Print** from the **File** menu.

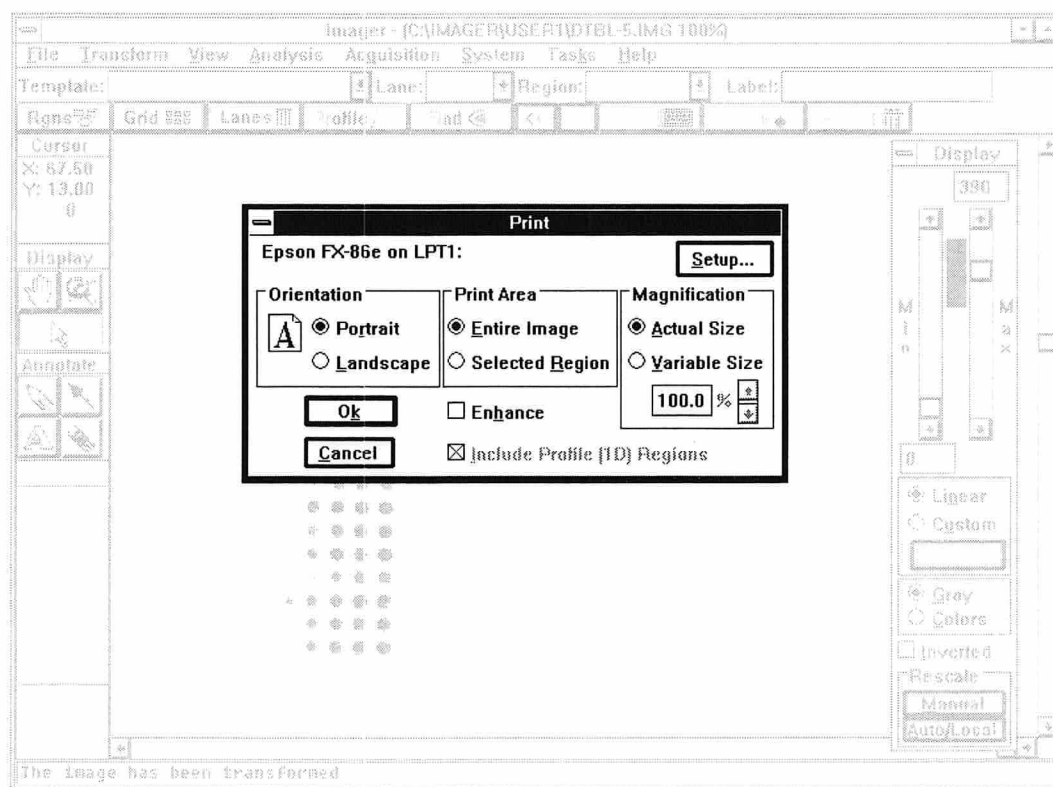


Figure 3-31. Print Window.

SELECTION**DESCRIPTION OF USE****Orientation:
Portrait**

Prints the image with the top at the short edge of the form.

**Orientation:
Landscape**

Prints the image with the top at the long edge of the form.

**Print Area:
Entire Image**

Prints the entire image as it is displayed on the screen.

**Print Area:
Selected Region**

Prints a portion of the image that you select. See **OK** below.

Enhance

Amplifies areas of low activity and smooths the edges of features in the printed image. Smoothing helps to minimize the "blocky" appearance of some printed images.

The default selection (when "Enhance" is NOT checked) improves the resolution of the printed image. For example, what appears as one indefinite form on the screen appears as two distinct forms on the printout.

**Include Profile
(1D) Regions**

When you select this checkbox, any profile (1D) regions in the area will be included in the printed image.

**Magnification:
Actual Size**

Prints the image with the dimensions of the actual sample size. Images printed on transparencies can be overlaid on the radioactive sample to locate labeled regions.

SELECTION

DESCRIPTION OF USE

**Magnification:
Variable Size**

Prints the image at the percentage of magnification indicated in the box. The image can be printed within a user-specific range of $\frac{1}{4}$ (25%) of the actual sample size to 4X (400%) the actual sample size.

To indicate the percentage of magnification, you can 1) enter the value into the box, or 2) select the up or down arrows (adjacent to the box) to increase or decrease the value.

If the image is too large for the printed page, due to its magnification (over 100% of the actual sample size), only the upper left hand section of the image or of the selected region of the image will be printed.

Not that selecting a variable size of 100% is the same as selecting "Actual Size."

OK

Prints the image. When printing a selected region, the pointer changes into a bracket. Drag the bracket over the region of the image you want to print.

CANCEL

Closes the window. Does not print the image.

SETUP

Displays the **Print Setup** window.

Region Group Report Options Window

The **Region Group Report Options** window (Figure 3-32) enables you to report the results obtained from a group of regions.

You can display the **Region Group Report Options** window in the following ways:

- ☐ By selecting **Report Template** from the **Analysis** menu.
- ☐ By selecting **REPORT** from the template bar.
- ☐ By selecting **REPORT PARAMETERS** from the **Edit Group of Regions** window (Figure 3-12).

The region group must be selected before any results can be reported.

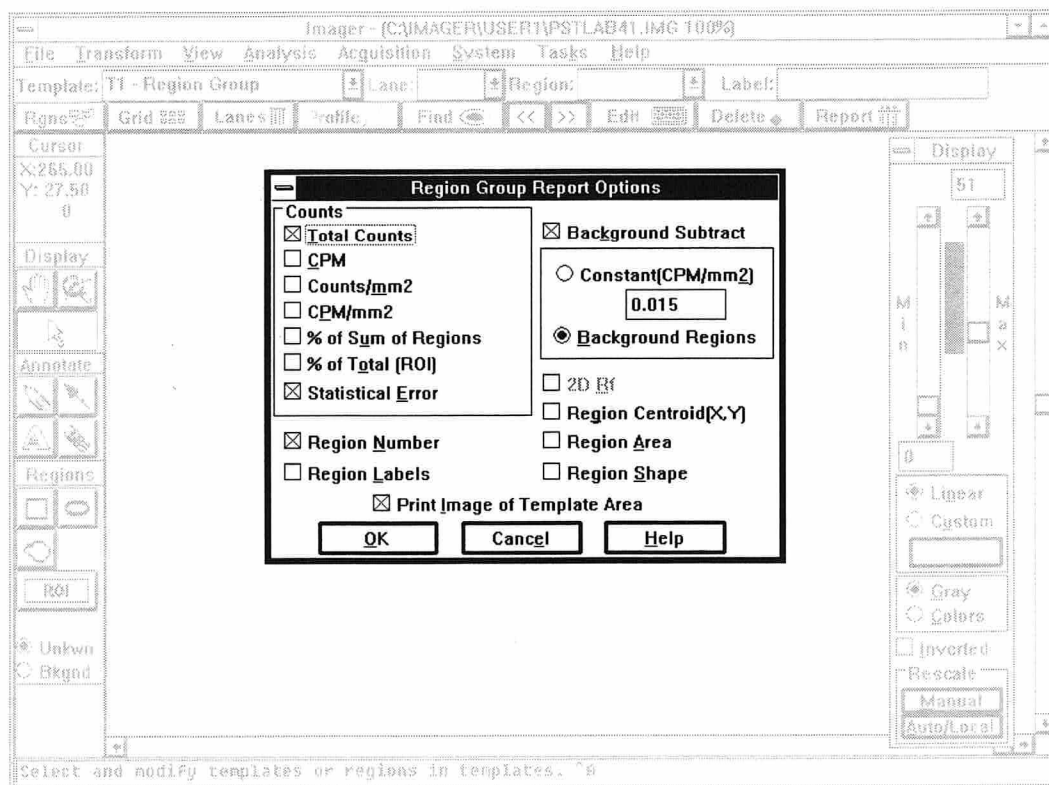


Figure 3-32. Region Group Report Options Window.

<u>SELECTION</u>	<u>DESCRIPTION OF USE</u>
Counts: Total Counts	Reports the sum of the counts in all the pixels within the Regions.
Counts: CPM	Divides the total counts in the regions by the counting time.
Counts/mm²	Divides the total counts in each region by the area of the region in mm ² .
CPM/mm²	Divides the total counts per minute in each region by the area of the region in mm ² .
% of Sum of Regions	Reports the counts in each region as a fraction of the sum of the activity in all the regions of the group.
% of Total (ROI)	Reports the counts as a fraction of the total counts of the entire image or of a ROI if one exists.
Statistical Error	Reports the two sigma statistical counting error in percent. See <i>Statistical Error</i> , below.
Region Number	Reports the region number as listed in the template bar or in the region tags on the image.
Region Labels	Reports the labels (if any) that are used to identify the regions, as listed in the template bar or in the region tags on the image.
Background Subtract	Select this option and then one of the highlighted background subtracting methods below. With both methods the background value in CPM/mm ² will be multiplied by the area of each region. This product will be subtracted from the CPM in the region.
Background Subtract: Constant (CPM/mm²)	Select this option and enter a numerical value in CPM/mm ² .

SELECTION**DESCRIPTION OF USE****Background Subtract:
Background Regions**

Select this option to determine the background from a region or regions defined as background. The background value will be the sum of the CPM in the background regions divided by the total area of the regions. If no background regions exist, the amount of background subtraction will be 0.

2D Rf

Reports the 2D Rf values as a %. Grayed inactive if no 2D Rf region has been defined.

**Region Centroid
(X,Y)**

Reports the coordinates (in mm) of the centroid of the counts in each region.

Region Area

Reports the area of each region in mm².

Region Shape

Reports the shape of each region: ellipse, rectangle, or irregular.

**Print Image of
Template Area**

Prints the area of the image within the rectangle that encompasses the group of regions on the report (reported only when you print the report). The template overlay is printed on the image if it is shown on the screen.

OK

Generates the report.

CANCEL

Abandons the operation and closes the window.

Statistical Error

When Background Subtraction is selected:

$$200 * \frac{\sqrt{\text{Gross Counts} + \text{Background Counts}}}{(\text{Gross Counts} - \text{Background Counts})}$$

When no Background Subtraction is selected:

$$200/n^{1/2} \text{ where } n \text{ is the counts in the region.}$$

Rescale Bitmap Window

The **Rescale Bitmap** window (Figure 3-33) enables you to manually scale the display to any range within the range of counts in the image.

To display the **Rescale Bitmap** window:

- ☐ Select **MANUAL** from the **Display** window (Figure 3-8).

The **Rescale Bitmap** window is also displayed when you try to set the maximum image intensity above the intensity range of the image.

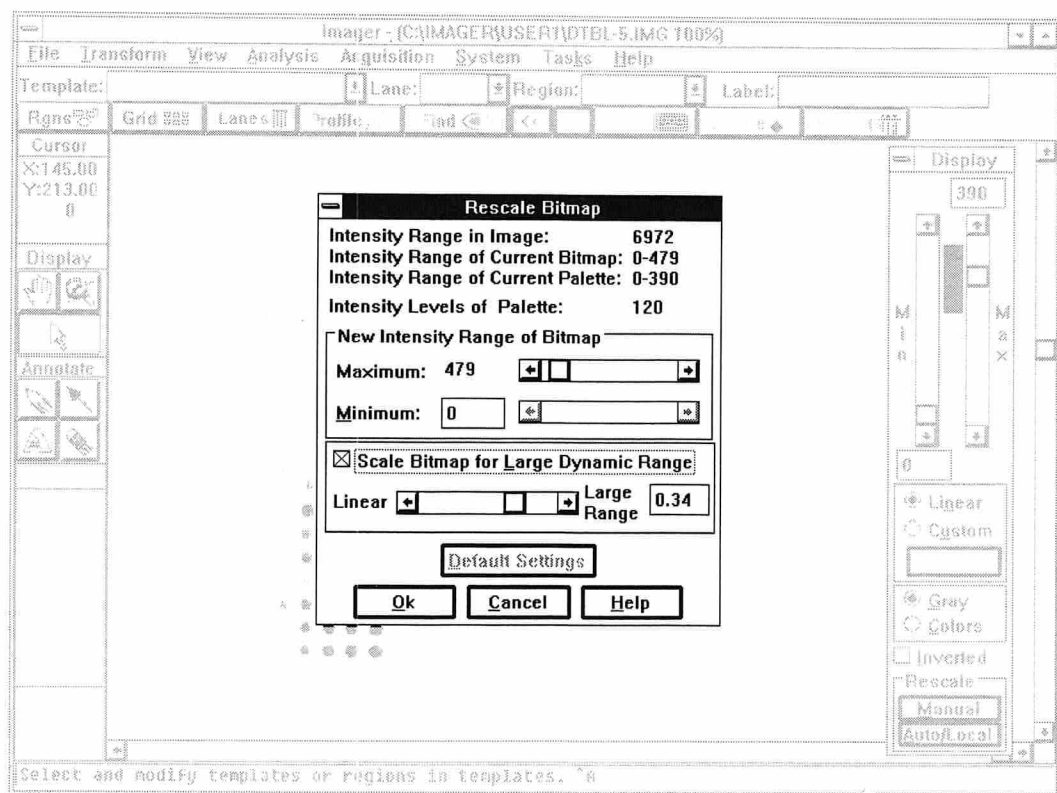


Figure 3-33. Rescale Bitmap Window.

SELECTION**DESCRIPTION OF USE****Intensity Range in Image**

The minimum and maximum counts per pixel in the image.

Intensity Range of Current Bitmap

The minimum and maximum intensities that can be displayed. The intensities within this range that are actually displayed depend on the display palette.

Intensity Range of Current Palette

The minimum and maximum intensities displayed by the current display palette. This range corresponds to what you currently see in the display.

Intensity Levels of Palette

The number of color levels used to display the image. This number can be set in the **User Preferences** window.

New Intensity Range: Maximum

Adjust the maximum intensity that you want displayed. The maximum intensity must be changed with a discrete increment.

The size of the increment depends on the number of colors or levels of gray in the display palette. You cannot make the maximum intensity larger than the maximum intensity in the image.

New Intensity Range: Minimum

Adjust the minimum intensity that you want displayed. The minimum intensity can be changed by any increment.

The minimum intensity can be set to suppress background in the display. This adjustment does not subtract background when you use templates for quantitation.

SELECTION

**Scale Bitmap for
Large Dynamic Range**

DESCRIPTION OF USE

Enables you to scale the bitmap exponentially. Useful when you want to see detail in areas of low activity and high activity in the same image.

The value of the exponent will range linearly from 1.00 on the left (labeled "Linear") to 0.10 on the right (labelled "Large Range"). You can modify the exponent by using the slide control, or manually entering a number in the entry box. The scroll bar will modify the exponent value in increments of 0.1. Sliding the scroll bar to the left will improve the clarity of areas of low counts. Sliding the bar to the right will improve the clarity of areas of high counts.

DEFAULT SETTINGS

Check this box to set the maximum and minimum intensity values to the default values chosen automatically by the InstantImager to scale to whole image.

OK

The maximum and minimum intensity values for image scaling are changed. The image bitmap is redrawn with the new scaling.

CANCEL

Aborts the operation and closes the window.

Save Image As Window

The **Save Image As** window (Figure 3–34) enables you to assign a filename to an image and save the image to the hard disk.

Image files are always saved to the directory assigned to the owner of the current acquisition. If present, templates are automatically saved with an image.

To display the **Save Image As** window:

- ☐ Select **Save As** from the **File** menu.

When you transform an existing image (using the functions listed under the **Transform** menu), the system will automatically display the **Save Image As** window when you go to save the image. You must assign the file a new name. This feature enables you to keep a copy of the original unaltered image on the system.

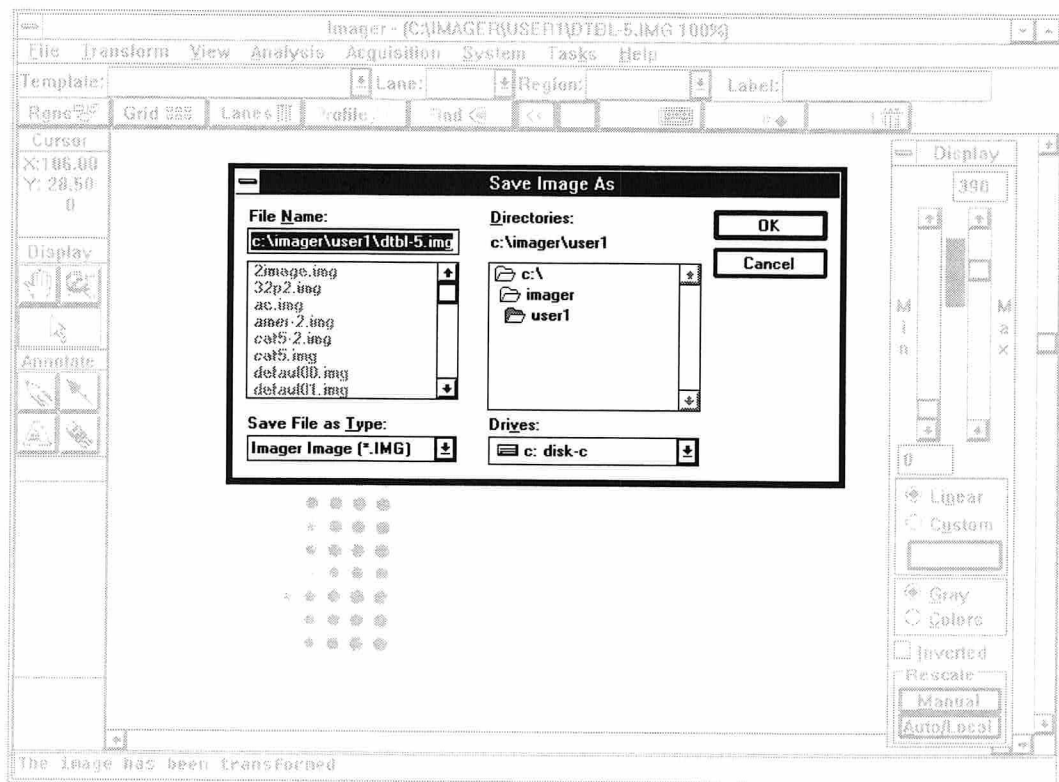


Figure 3–34. Save Image as Window.

SELECTION

DESCRIPTION OF USE

Filename:

Enter the filename of the image. The system automatically includes a .IMG extension.

Directory:

The current owner's directory.

Drives:

Select a different drive by optionally clicking on a drive in the list. (Note that the image must be saved to the owner's directory.)

Directories:

Select a different directory by optionally clicking on a directory in the list. See **Drives** above.

Files:

Select a different filename by clicking on a filename in the list. The system will overwrite the selected file with the current image.

OK

Saves the image to the selected directory. Closes the window.

CANCEL

Ignores the save operation. Closes the window.

Save Report As Window

The **Save Report As** window (Figure 3-35) enables you to assign a filename to a template report and save it to the hard disk.

Report files are always saved to the directory assigned to the owner of the current acquisition.

To display the **Save Report As** window:

- ☐ Select **Save** from the **File** menu of a **Template Report** window.

The **Template Report** window is displayed as soon as a template report is generated, and contains the results of the report. See Chapter 9 of the *InstantImager Getting Started Manual* for more information on the **Template Report**.

The filename box is highlighted and contains the default filename, followed by the suffix designated in the “Save File as Type” box.

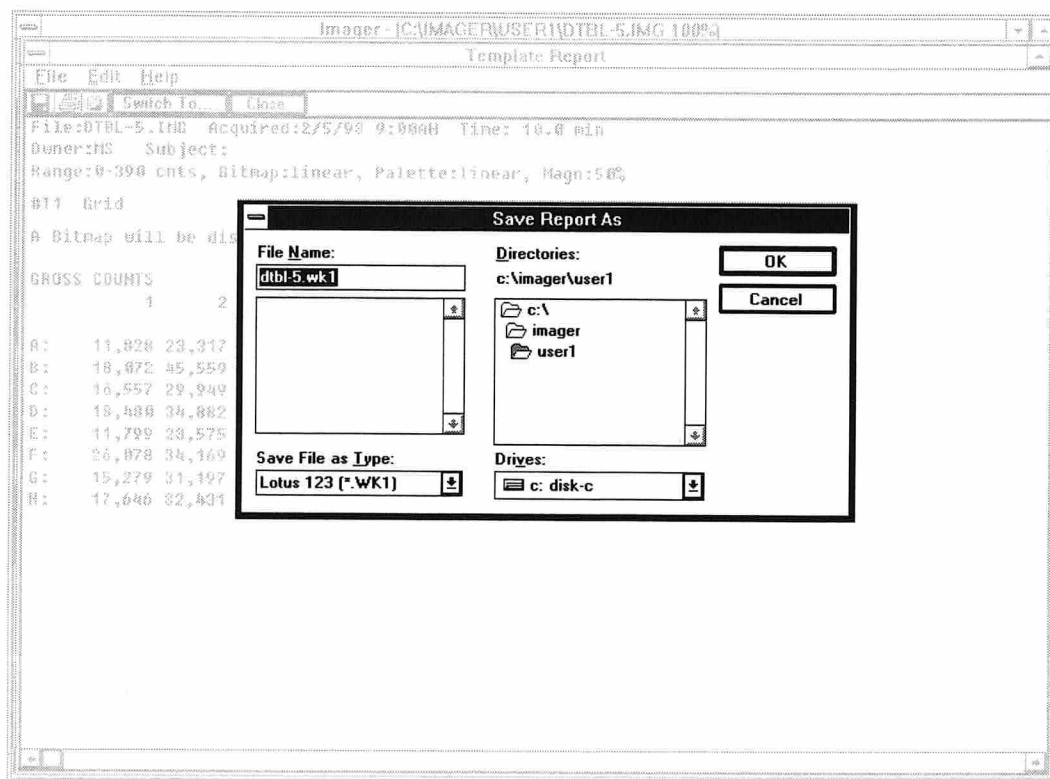


Figure 3-35. Save Report as Window.

SELECTION

DESCRIPTION OF USE

File Name

Contains the image filename followed by the suffix designated in the "Save File as Type" box. Characters in the name can be highlighted using the mouse or using the arrow keys in combination with the mouse. Any typing will replace the highlighted characters.

Drives

Select a different drive by optionally clicking on a drive in the list. Reports can be saved to a floppy disk.

Directories

Select a different directory by optionally clicking on a directory in the list. The owner's directory is listed by default. Directories in the owner path will be listed. Click on one of these directory names to save the report file in a subdirectory in the owner directory. Do not move to a directory higher in the directory tree; all image and analysis data should always be saved to the owner's directory or below.

Files

Select a different filename by clicking on a filename in the list. Report files in the current directory will be listed. If you click on one of these filenames, the name will be entered in the "File Name" box. Change the name unless you intend to write over an existing file name.

SELECTION

DESCRIPTION OF USE

Filename:

Enter the filename of the template. The system automatically includes a .TEM extension.

Directory:

The current owner's directory.

Drives:

Select a different drive by optionally clicking on a drive in the list. (Note that the template must be saved to the owner's directory.)

Directories:

Select a different directory by optionally clicking on a directory in the list. See **Drives** above.

Files:

Select a different filename by clicking on a filename in the list.

OK

Saves the template to the selected directory. Closes the window.

CANCEL

Ignores the save operation. Closes the window.

Select Molecular Weight Standards Window

The **Select Molecular Weight Standards** window (Figure 3-37) enables you to select and load a file containing molecular weight standards.

To display the **Select Molecular Weight Standards** window:

- ☐ Select **LOAD MW STANDARDS** from the **Lane Template Parameters** window (Figure 3-25).

Or,

- ☐ Select **BROWSE** at the **Edit Lane Points** window.

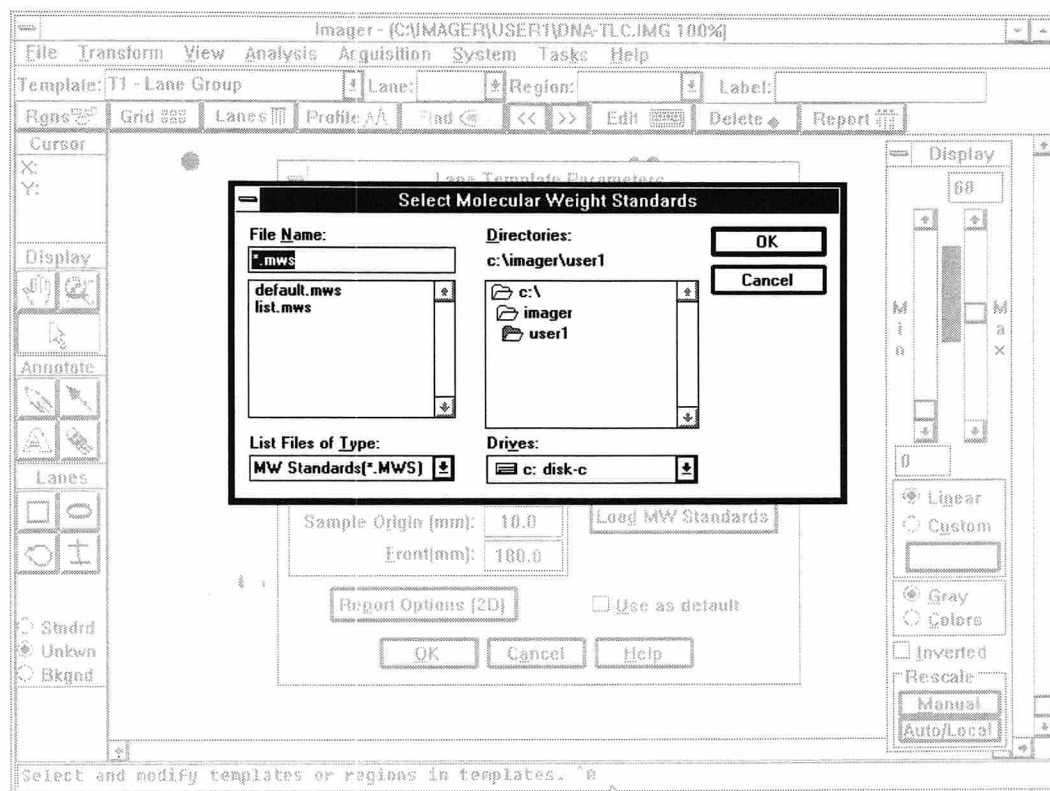


Figure 3-37. Select Molecular Weight Standards Window.

SELECTION**DESCRIPTION OF USE****Filename:**

Enter the file that contains molecular weight standards.

Directory:

The current owner's directory.

Drives:

Select a different drive by optionally clicking on a drive in the list.

Directories:

Select a different directory by optionally clicking on a directory in the list.

Files:

Select a file by clicking on a name in the list.

OK

Loads the selected file. Closes the window.

CANCEL

Ignores the operation. Closes the window.

Smooth Parameters Window

The **Smooth Parameters** window (Figure 3-38) enables you to specify the amount of smoothing you want applied to the image. Smoothing only affects the display. It does not permanently change the original copy of the image.

To display the **Smooth Parameters** window:

- ☐ Select **Smooth** from the **View** menu.

You should try each category (light, medium, or heavy) to find the amount of smoothing that is right for the image.

You can select “None” to return the image to its original state.

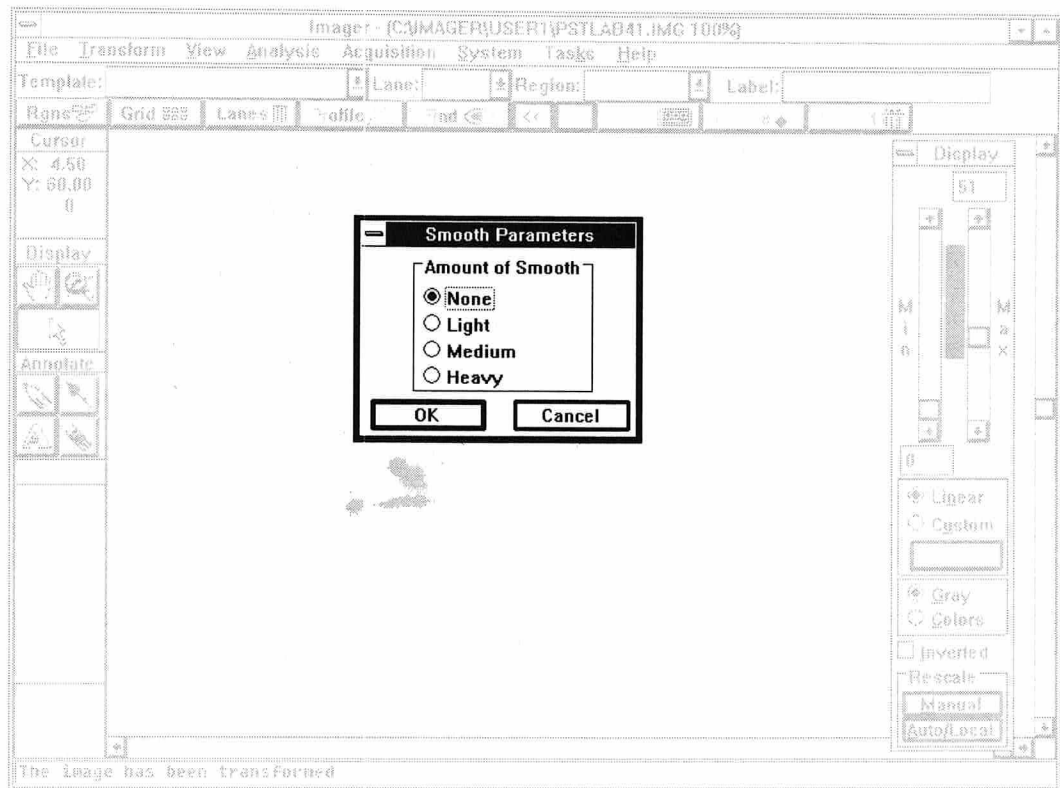


Figure 3-38. Smooth Parameters Window.

SELECTION**DESCRIPTION OF USE****None**

No smoothing is applied. Returns the image to its original state if light, medium, or heavy smoothing has been applied.

Light

Applies a minimal amount of smoothing to the image.

Medium

Applies a moderate amount of smoothing to the image.

Heavy

Applies a significant amount of smoothing to the image.

OK

Initiates the smoothing process.

CANCEL

Cancels the selection and closes the window.

Standard Curve Parameters Window

The **Standard Curve Parameters** window (Figure 3-39) enables you to select the appropriate curve fitting method and axis transformation for the molecular weight standard curve.

To display the **Standard Curve Parameters** window:

- ☐ Select **PAR** at the **Molecular Weight Standard Curve** window.

 **Note:** *The calculations used in the instrument are based upon standard mathematical formulas. See the following resources for more information: 1) "Numerical Methods" by Robert W. Hornbeck - 1975. 2) "Smoothing By Spline Functions" by Christian Reinsch - 1967.*

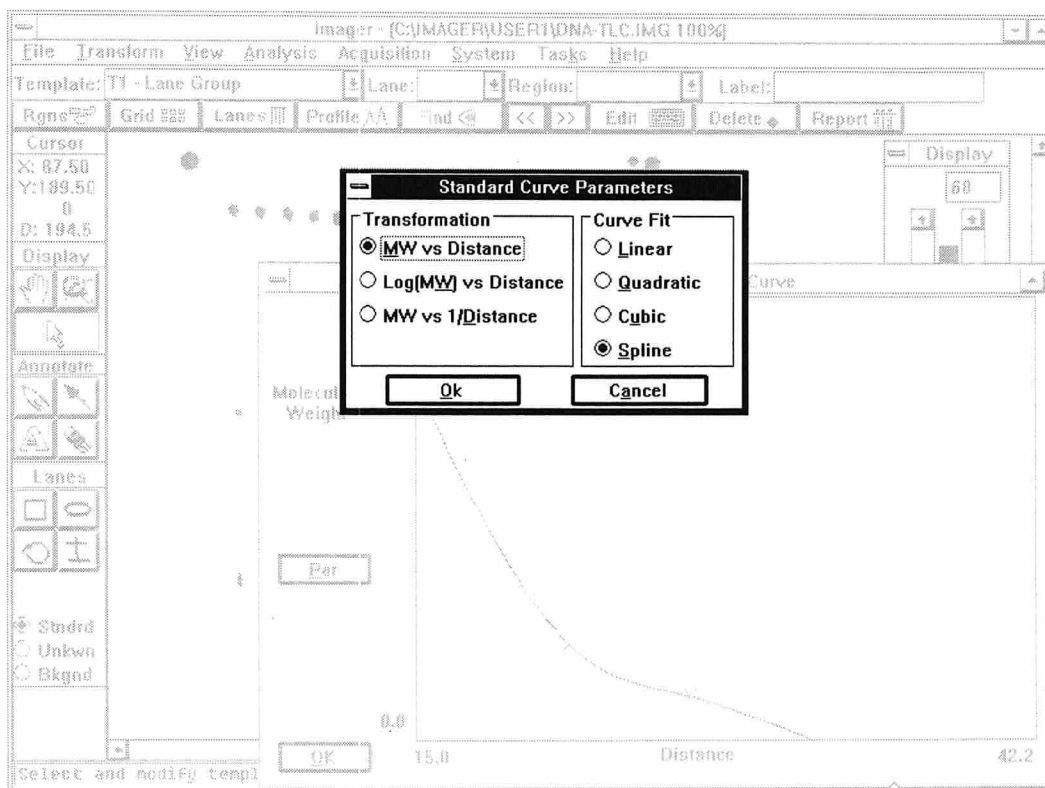


Figure 3-39. Standard Curve Parameters Window.

SELECTION

DESCRIPTION OF USE

Save File as Type

Designate the format to which the image is going to be saved. Two formats are available, Lotus 123 (*.WK1) and ASCII Text (*.TXT).

Lotus 123®: The report will be stored in Lotus 123 format. The extension on the filename will be changed to .WK1 and the listed files will be the *.WK1 files already present in the current directory.

ASCII Text: The report will be stored in ASCII Text format. The extension on the filename will be changed to .TXT and the listed files will be the *.TXT files already present in the current directory.

OK

Saves the report to the selected directory.

CANCEL

Ignores the save operation. Closes the window.

Save Template As Window

The **Save Template As** window (Figure 3-36) enables you to save a template or a group of templates to a separate file. They can later be loaded when a similar image is to be analyzed.

To display the **Save Template As** window:

- ☐ Select **Save Templates As** from the **Analysis** menu.

The filename box is highlighted and contains the default filename, followed by an extension of .TEM. The owner's directory is also listed.

You should assign a unique filename to the template.

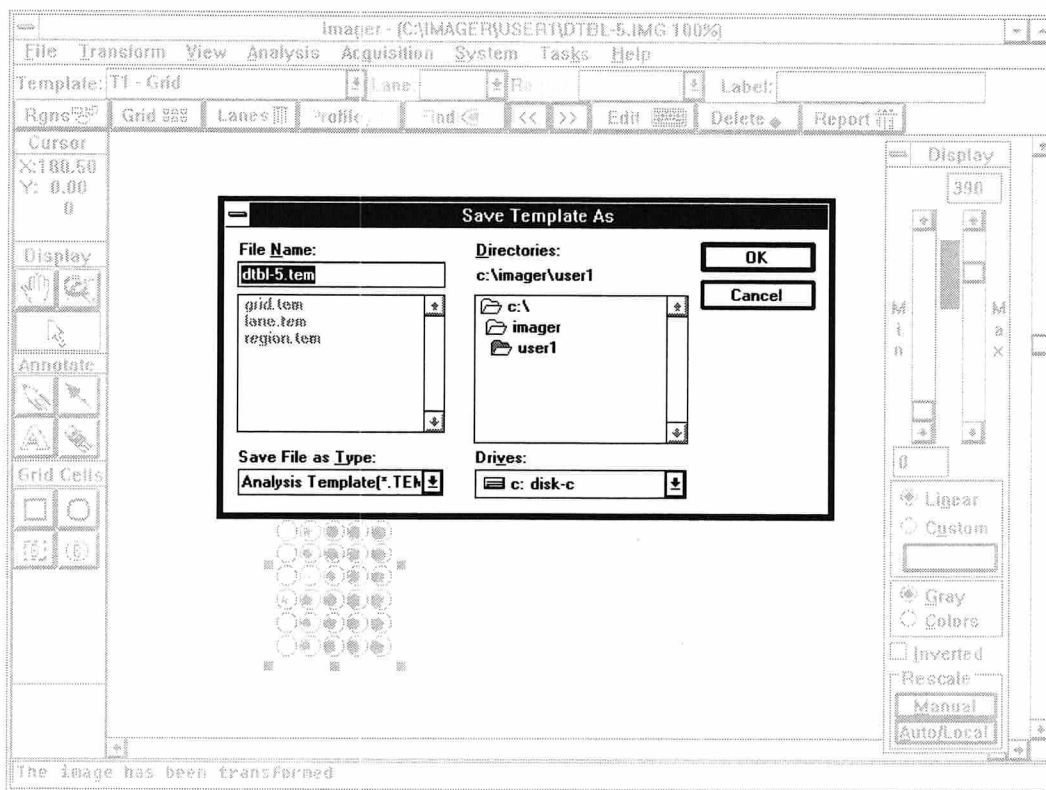


Figure 3-36. Save Template as Window.

SELECTION**DESCRIPTION OF USE****Transformation:
MW vs Distance**

Takes the molecular weight and distance of each standard to plot the standard curve. This is the default axis transformation.

**Transformation:
Log [MW] vs Distance**

Takes the log of each molecular weight and the distance of each standard to plot the standard curve.

**Transformation:
MW vs 1/Distance**

Takes the molecular weight and the inverse of the distance of each standard to plot the standard curve.

Curve Fit: Linear

Uses the linear curve fitting method to draw the standard curve.

**Curve Fit:
Quadratic**

Uses the quadratic curve fitting method to draw the standard curve.

Curve Fit: Cubic

Uses the cubic curve fitting method to draw the standard curve.

Curve: Spline

Uses the spline curve fitting method to draw the standard curve. Spline is the default.

OK

Draws the standard curve based upon the transformation selection and curve fit selection.

CANCEL

Aborts the operation and closes the window.

System Operator Window

Selecting **SYSOP** from the **Imager Users** window displays the **System Operator** window (Figure 3-40). This window enables the system administrator to:

- Assign the system password.
- Enable user password protection.
- Enable user password access.
- Enable usage logging.

Each of these functions are discussed below.

Only the system administrator or an authorized substitute can access the **System Operator** window. You must enter the system password in order to access this window. When you enter the password, asterisks (*) will appear for each keystroke.

The system administrator is responsible for assigning the system password.

All of the users known to the system are listed to the left in the **System Operator** window under “Users.”

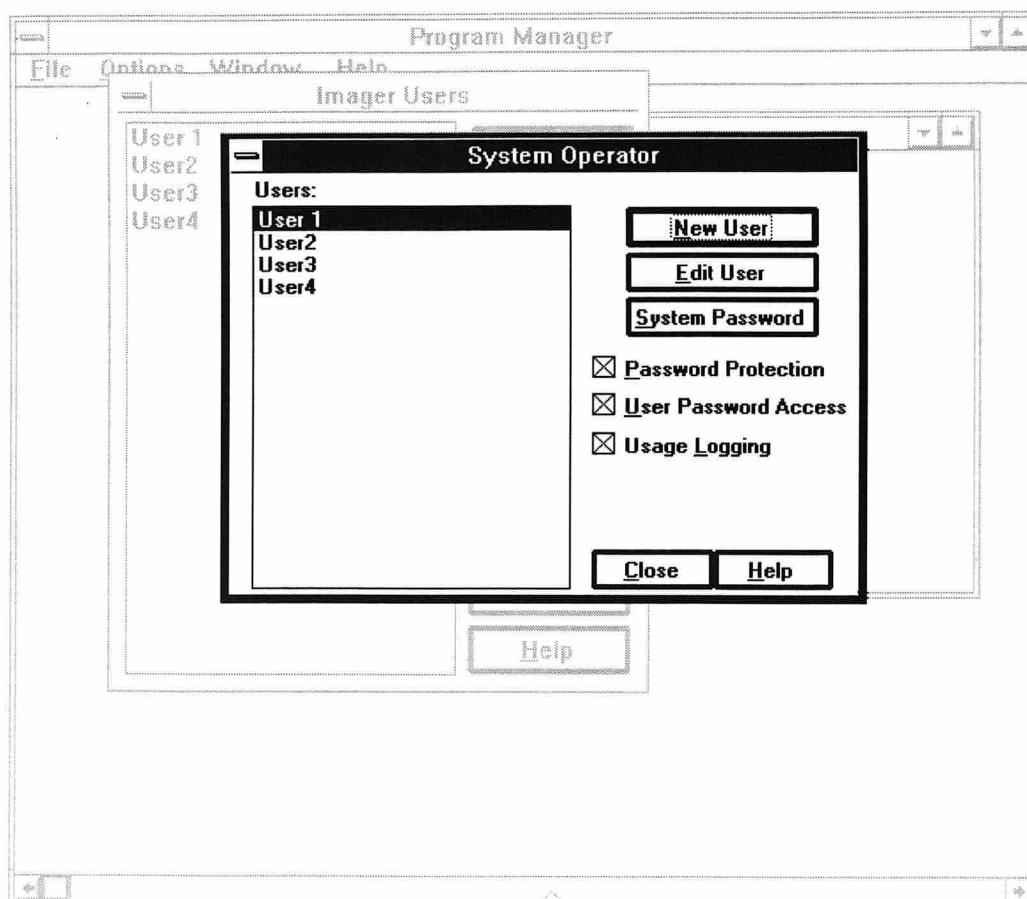


Figure 3-40. System Operator Window.

<u>SELECTION</u>	<u>DESCRIPTION OF USE</u>
NEW USER	Displays the User Information window. Enables you to add a new user to the system.
EDIT USER	Displays the User Information window. Enables you to edit information about the user selected from the list.
SYSTEM PASSWORD	Enables you to change the system password.
CLOSE	Closes the window and saves the settings.
HELP	Displays online help about the window.
Password Protection	When selected, requires each user to enter their password before proceeding with an acquisition.
User Password Access	When selected, allows any user to: 1) enter a password for a new user, and 2) change the password of an existing user.
Usage Logging	When selected, maintains a record of all acquisitions in a usage log file.

Task List Window

The **Task List** window displays a list of all the applications you are currently running.

You can use the **Task List** window to: 1) switch between applications, and 2) rearrange application windows so that all running applications are visible on your desktop.

To display the **Task List** window (Figure 3-41).

- ☐ Select **Switch To** from the **Tasks** menu.

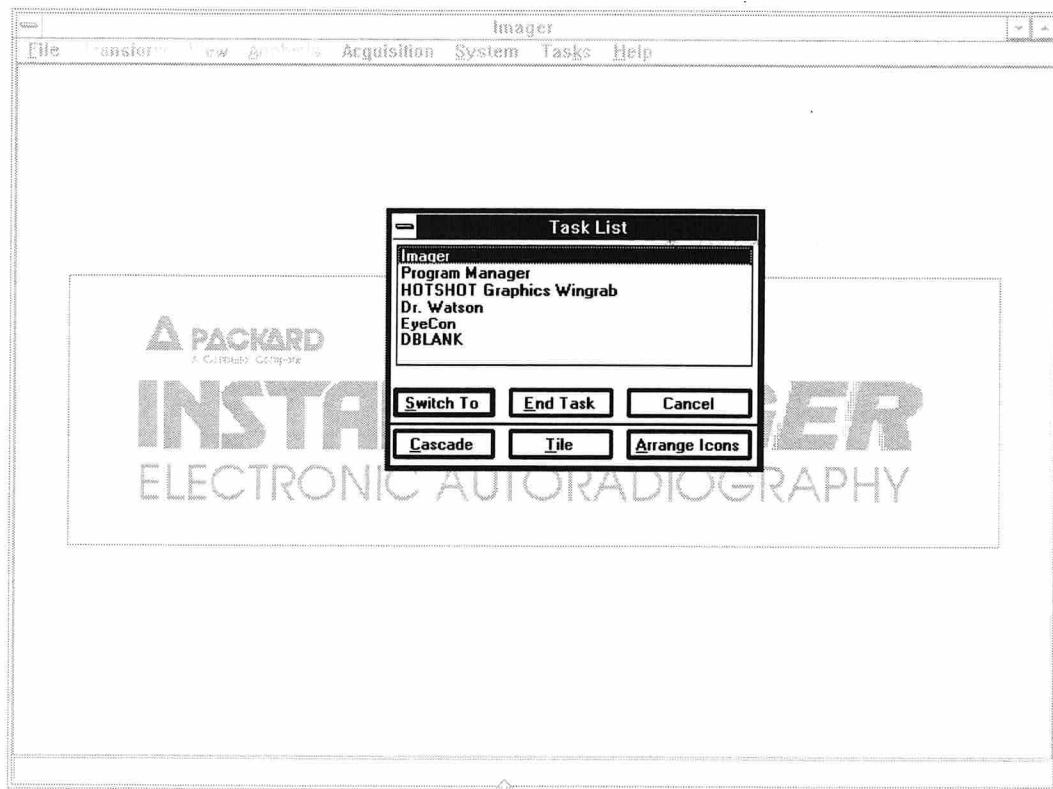


Figure 3-41. Task List Window.

SELECTION

DESCRIPTION OF USE

SWITCH TO

Runs the application that is currently highlighted in the list.

END TASK

Ends the application that is currently highlighted in the list.

CANCEL

Cancels the current operation and closes the list.

CASCADE

Causes the windows to overlap so that each title bar is visible.

TILE

Arranges open windows in smaller sizes to fit next to each other on the desktop.

ARRANGE ICONS

Evenly arranges applications running as icons in the window.

See the Microsoft Windows User's Guide for more information on the **Task List**.

Template Report Window

The **Template Report** window (Figure 3-42) is displayed when you want to report on a template and more than one template is displayed over the image. All templates included in the current image are listed in the window. The currently selected template is highlighted in the list. This window enables you to highlight any combination of templates for reporting.

To display the **Template Report** window:

- ☐ Select **Report Template** from the **Analysis** menu or **REPORT** from the template bar.

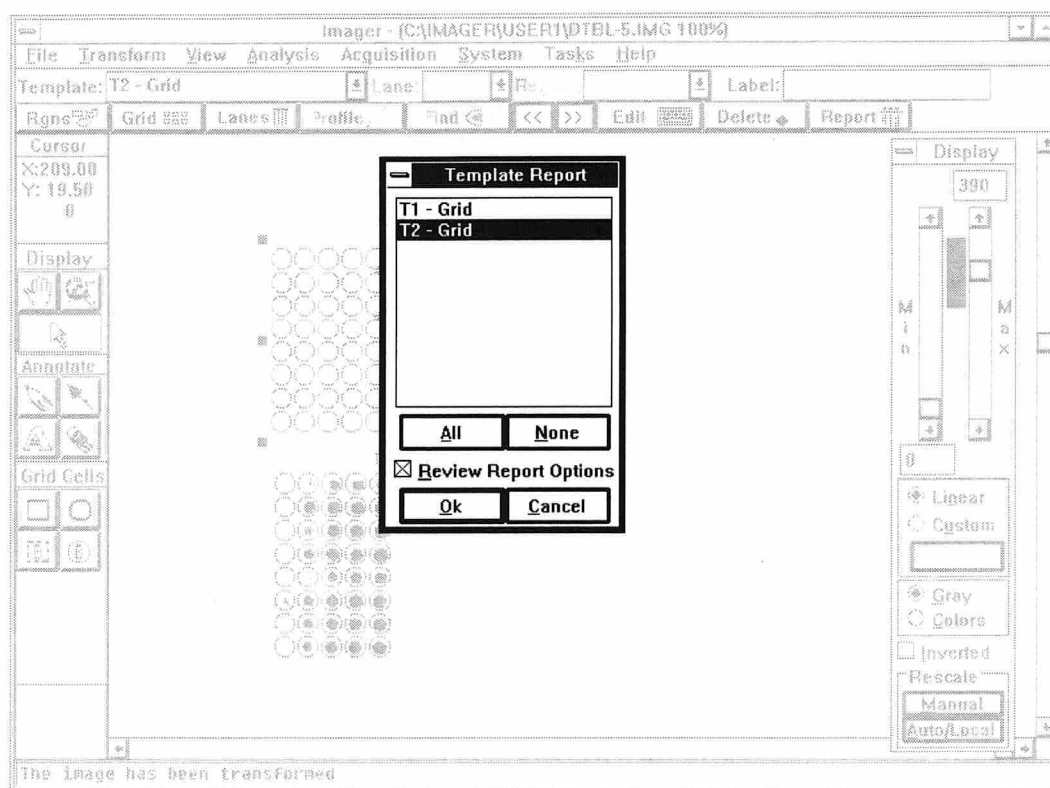


Figure 3-42. Template Report Window.

<u>SELECTION</u>	<u>DESCRIPTION OF USE</u>
ALL	Selects all the templates listed in the window. Each report is generated successively in the order listed.
NONE	Deselects all previously selected templates in the list.
OK	Generates the template reports.
CANCEL	Ignores the operation and closes the window.
Review Report Options	Displays the Report Options windows for all the selected templates before the report is created. Enables you to make last minute changes to report parameters before generating a report.

Text Annotation Window

The **Text Annotation** window (Figure 3–43) enables you to place comments (annotations) over selected regions of an image. The comments do not affect the image.

To display the **Text Annotation** window:

- ☐ Select the Text Tool (Alpha icon in the Display section) from the tool box.

When you select the Alpha icon, the pointer becomes a text cursor when you move it over the image.

- ☐ Move the text cursor to a selected spot on the image. This will be the spot where the comment appears.
- ☐ Click the left mouse button.

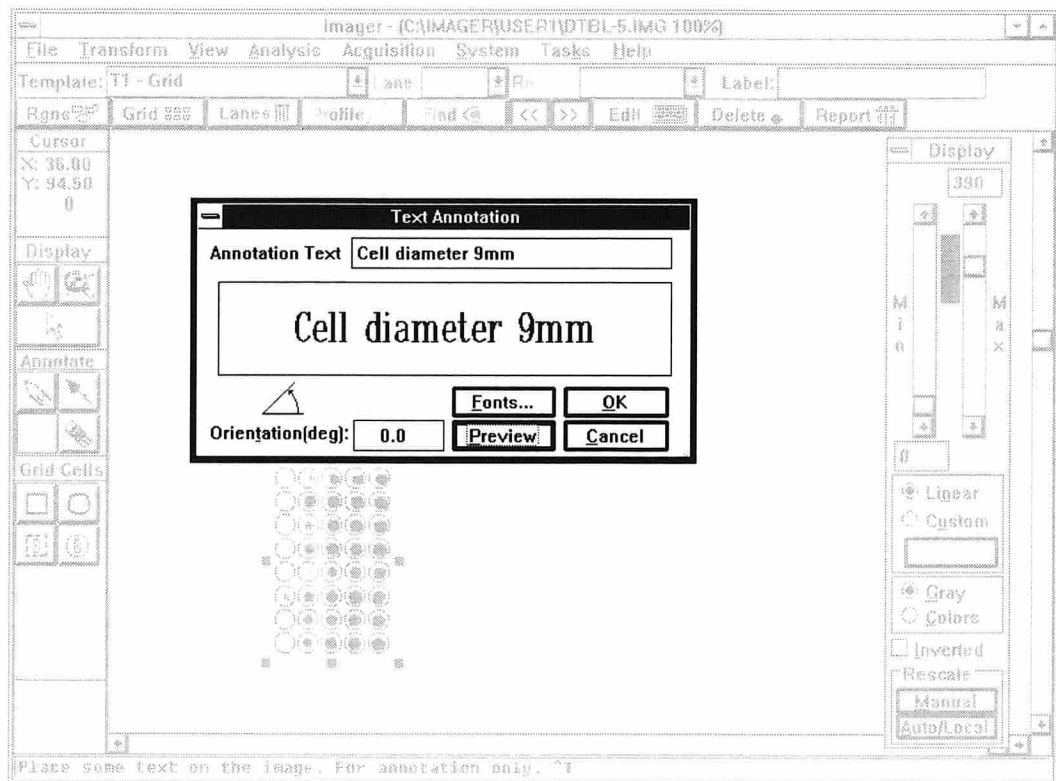


Figure 3–43. Text Annotation Window.

SELECTION

DESCRIPTION OF USE

Annotation Text

Enter the comment you want to appear over the image.

Orientation [deg]

Enter the value (expressed as degrees of rotation) in the entry box. This value enables you to rotate annotation text so that it can be displayed at any degree of orientation. The value that you enter can range from -360° to 360° . Text displayed at 0° of rotation will be perfectly level.

PREVIEW

Displays the annotation text as it will appear on the image.

FONT

Displays the **Font** window (Figure 3-18). This window enables you to select the font, font style, and size of the text characters.

OK

Places the text over the image. Closes the window.

CANCEL

Ignores the annotation text. Closes the window.

Time Series (Space Warning)

The system attempts to calculate the number of image files that will be generated, and how much disk space they will require. If there is not enough disk space available when you start the acquisition, the following warning will appear.

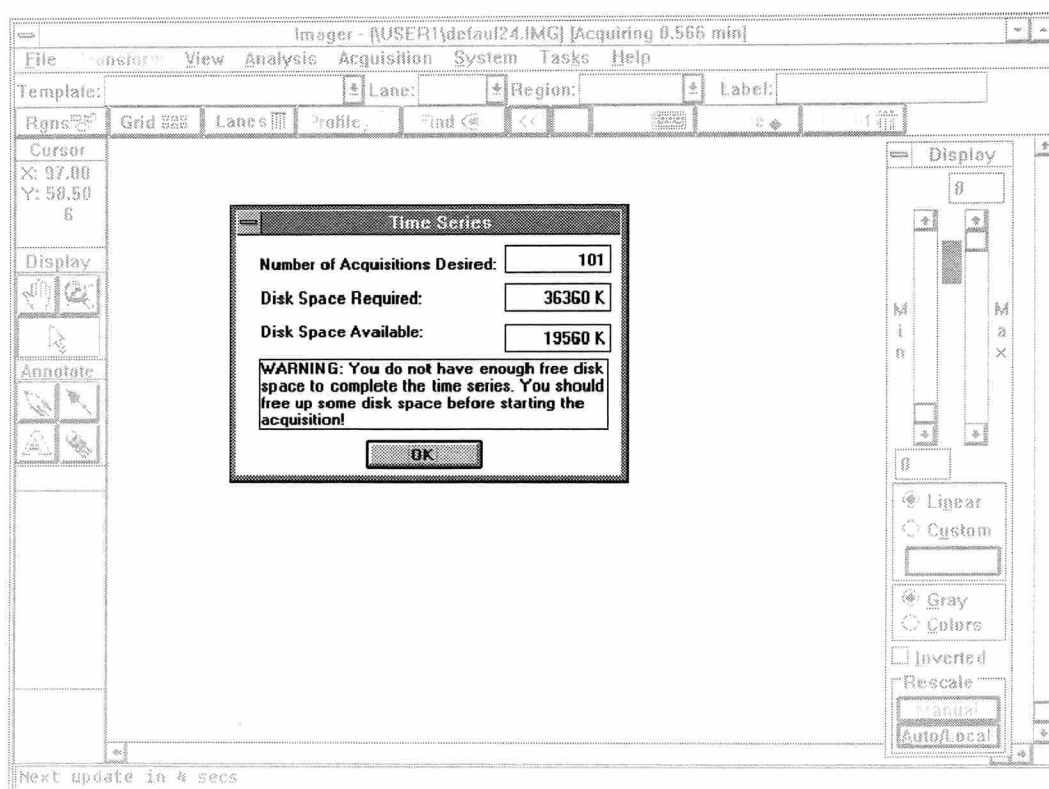


Figure 3-44. Time Series Warning Window.

Notice, in this example, that the system is trying to find room for 101 images, one more than the maximum number allowed for Time Series Acquisitions. This is to make room for the extra “overflow” file (see page R178) that is created after the file naming convention is exhausted. The warning shows you the system calculations so that you can determine where to make adjustments. There are four things that you can do if you get this warning:

- Make room on the disk for the images that will be generated from the Time Series.
- Increase the time interval to reduce the number of images created.
- Reduce the Preset Time to reduce the number of images created.
- Choose Preset Time as the Counting Method so you can limit the overall acquisition time and reduce the number of images created.

User Information Window

The **User Information** window (Figure 3-45) can be used to add a new user account to the system. When a new user account is created, the system adds a user directory, copies default files into the directory, and creates an icon on the Start Menu or Program Manager (see *The Imager Icon* below). All images acquired by the user are saved to the unique directory organized under the icon.

You can also use the **User Information** window to change user account information.

The **User Information** window is accessed from the **Imager Users** window (Figure 3-22). From the **Imager Users** window you can select either the **NEW** button or the **EDIT** button, depending on what you want to do.

When you want to add a new user to the system:

- ☐ Select **NEW**.

When you want to change information about a current user:

- ☐ Select a user from the list.
- ☐ Select **EDIT**.



Figure 3-45. User Information Window.

The Imager Icon

The Imager group on the Start Menu or Program Manager contains one or more Imager icons; each for a different user of the system.

Start the InstantImager software by selecting a user icon. This will start the program with the correct directory, owner, and quota information for the individual user.

SELECTION

DESCRIPTION OF USE

Name:

Specify the user name as it appears under the Imager icon. The name represents the owner of the images saved in the specified directory.

Directory:

Enter the directory path that will contain the acquired images for the specified user.

Quota [kilobytes]:

Enter the disk space in kilobytes that the user is allowed for data storage in the specified directory. (1 kilobyte equals approximately 1,000 bytes.) If in time the directory becomes too full, files should be removed from the directory.

**Disk Space Used
[Kilobytes]**

The space in kilobytes that the user is currently using to store data in the specified directory.

OK

Creates the user directory, copies default files into the directory, and creates an Imager icon on the Start Menu or Program Manager.

CANCEL

Abandons changes when you exit the window.

HELP

Displays online help.

User Preferences Window

The **User Preferences** window (Figure 3-46) is displayed by selecting **PREFERENCES** at the **Imager Users** window (with a user selected from the list).

The **User Preferences** window enables you to customize the template color, annotation color, helpline color, update frequency, and intensity levels of display for the selected user.

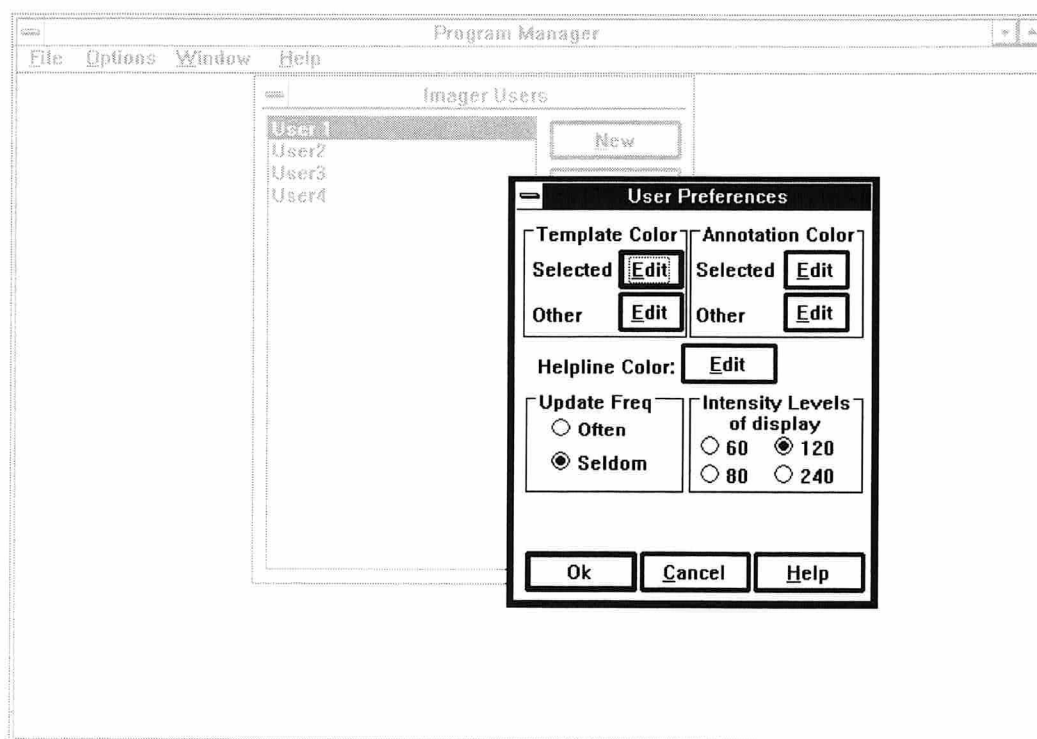


Figure 3-46. User Preferences Window.

SELECTION

DESCRIPTION OF USE

Template Color

Several templates can be present on an image. The selected template ("Selected") is displayed in a highlighted color while the remaining template(s) ("Other") are displayed in a dimmed uniform color.

To specify a color, click on the appropriate **EDIT** button; then select a color at the **Color** window. Select **OK** to save the setting. The current colors for templates are indicated by the colors of the words "Selected" and "Other."

Annotation Color

Several annotations can be present on an image. The selected annotation ("Selected") is displayed in a highlighted color while the remaining annotation(s) ("Other") are displayed in a dimmed uniform color.

To specify a color, click on the appropriate **EDIT** button; then select a color at the **Color** window. Select **OK** to save the setting. The current colors for annotations are indicated by the colors of the words "Selected" and "Other."

Helpline Color

The helpline is at the bottom of the **InstantImager** window and displays information about areas of the screen and functions you are performing.

The current color of the helpline is indicated by the colors of the words "Helpline Color." Choose the **EDIT** button next to these words to open the **Color** window where you can change the color of the helpline.

SELECTION**DESCRIPTION OF USE****Update Frequency**

During an acquisition, the image is periodically updated to the screen. It is possible to change the frequency of these updates.

Selecting "Often" means that an update will occur every 15 seconds during an acquisition.

Selecting "Seldom" sets the update frequency value to 15. This means that the first update will occur 15 seconds after the acquisition begins and increase by 1 second for every 15 seconds that elapse from the start of the acquisition. The net effect is that each update is performed at ever increasing intervals during the acquisition until a maximum interval of 5 minutes is reached.

**Intensity Levels
of Display**

The palette that displays the bitmap of the image can contain up to 240 colors or shades of gray. If the number of colors is set for less than 240, there can be more than one instance of the InstantImager program running with independent display palettes.

Set the Intensity Levels at 240 if you do not expect to view images in more than one instance of the InstantImager at once.

Set the Intensity Levels at 120 if you want to be able to view two images simultaneously in separate instances of the program with independent display palettes.

EDIT

Displays the appropriate **Color** window. Use the **Color** window to change the color of templates, annotations, and the helpline.

OK

Saves changes and exits the window.

CANCEL

Abandons changes and exits the window.

HELP

Displays online help.

Users Images Window

The **User Images** window (Figure 3-47) enables you to perform basic file operations on the image files of a selected user. This window is displayed by selecting a user from the list at the **Imager Users** window and clicking on the **FILES** button.

A complete list of images associated with the selected user is displayed to the left in the window. To select an image file to manipulate:

- ☐ Use the mouse to point to a file and click the left mouse button. This highlights the filename.

Once the file is selected, you can perform the following operations:

- View the complete image.
- Delete the image file from the disk.

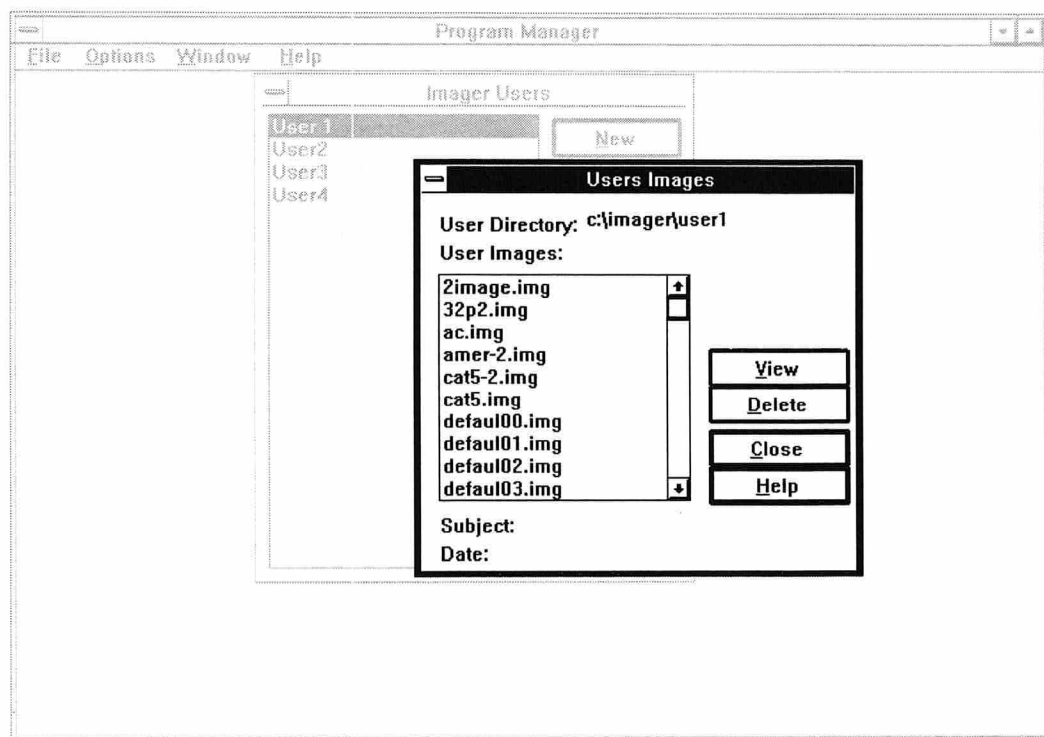


Figure 3-47. Users Images Window.

<u>SELECTION</u>	<u>DESCRIPTION OF USE</u>
User Directory	The directory (including the path) where the images of the selected user are saved.
User Images	The list of images attributed to the selected user.
Subject	The selected image's main area of interest.
Date	The date and time the selected image was last saved.
VIEW	Enables you to see the selected image.
DELETE	Enables you to delete the selected image.
CLOSE	Exits the window.
HELP	Displays online help.

Which Protocol to Edit Window

The **Which Protocol to Edit** window (Figure 3–48) enables you to update a protocol during an acquisition. You can change the current protocol (temporary copy) or the permanent copy of the protocol stored on the hard disk.

Making a change to the current protocol only affects the current acquisition; the change does not affect the permanent copy of the protocol.

Making a change to the permanent copy of the protocol does not affect the current acquisition.

To display the **Which Protocol to Edit** window:

- ☐ Select **Edit** from the **Acquisition** menu during an acquisition.

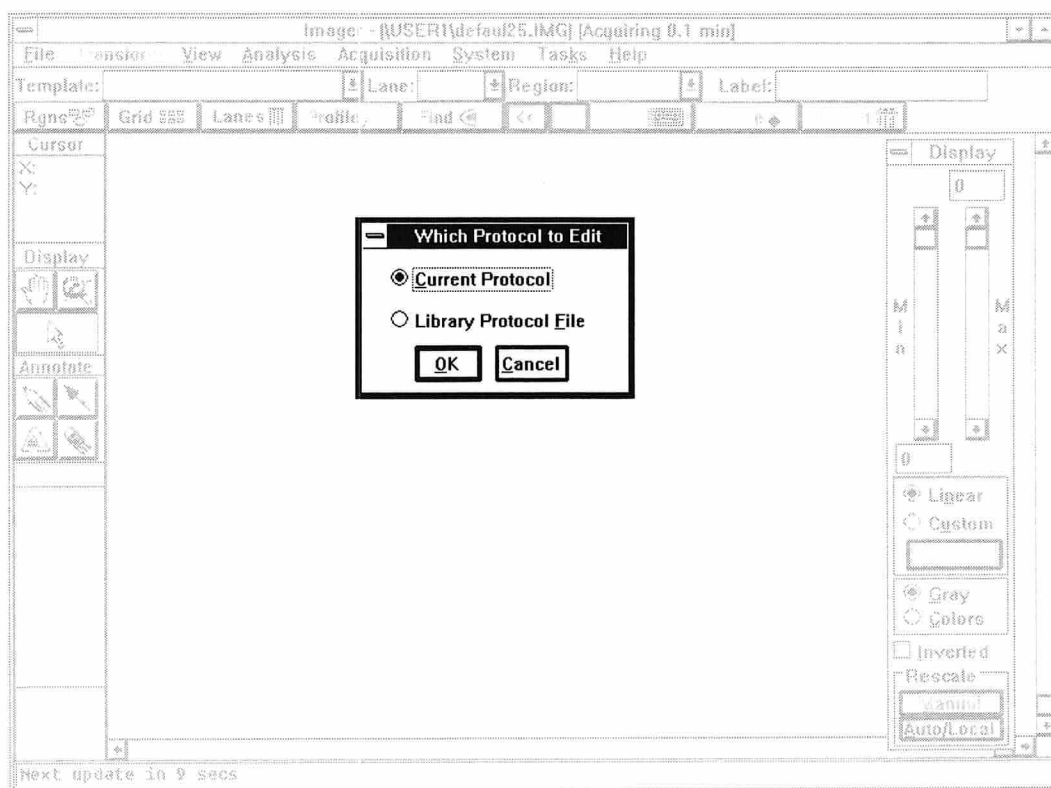


Figure 3–48. Which Protocol to Edit Window.

<u>SELECTION</u>	<u>DESCRIPTION OF USE</u>
Current Protocol	Select this option to edit the current acquisition. Displays the Edit Current Protocol window (Figure 3-11).
Library Protocol	Select this option to edit the permanent copy of the protocol on the hard disk. Displays the Edit Acquisition Protocol File window (Figure 3-9).
OK	Displays the selected option.
CANCEL	Ignores the selection and closes the window.

This page is intentionally left blank.